Pharmaceutical Promotion and Consumers: Unpacking the Assumptions

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Signed, Marie-Clare Hogue
For my beautiful daughter Sadie Wells Ferguson.

I could not have undertaken this work without the unfailing devotion of my little girl.

Thank you my angel, I love you.
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This research explored a contradiction in Australian pharmaceutical promotion policy: direct to consumer advertising (DTCA) is banned yet pharmaceutical companies are allowed to run public “disease education” programs, some of which critics argue are examples of “disease mongering”. The latter is a pejorative term which refers to widening the diagnostic boundaries of illnesses, and promoting public awareness of such, in order to expand the markets for those who sell and deliver treatments.

This policy contradiction is reflected in two different views of consumers. One view sees the consumers as susceptible and gullible, lacking the skills to distinguish promotional hype from evidence of real clinical benefit desiring a “pill for every ill”. The alternative view is the “expert consumer” who can critically appraise new information presented by the pharmaceutical industry and, with the assistance of their medical advisor, make an informed decision to its relevance to them.

In this thesis, I examined these claims made about consumers; how consumers are presumed to behave and how consumers are constructed both as medicine users in disease mongering and in other discourses about promotion. I adopted a social science approach at the assumptions about consumers that inform the regulation and governance of drug promotion and explored the extent to which these assumptions are reflected in consumer’s reports of their medicine related behaviours.
This research has four strands. The first is a comprehensive review of literature especially with respect to sociological concepts of “pharmaceuticalisation”, “biomedicalisation” and “disease mongering”.

The second is structured in-depth interviews (by telephone or Skype) with 18 informants who had written critically about disease mongering, or pharmaceutical marketing more generally, analysed using grounded theory methodology.

The third looked at how primary media sources (print, radio, TV) in the Hunter Valley Region of NSW communicated information about health. It focusses on the ‘framing’ of three conditions: depression/bipolar disorder, breast cancer and obesity over a six month period in 2009. A commercial media monitor service was used and a total of 1,203 items were received. The three conditions selected comprised 153 items: depression/bipolar disorder n=37, breast cancer n=54 and obesity n=62.

The final strand is a cross-sectional study of a random sample of 800 Newcastle/Hunter community of NSW to investigate how consumers react to media reports of conditions and treatments and to explore its impact on their prescription related behaviours. The survey also investigates consumer attitudes to medicine use, the pharmaceutical industry, the industry doctor relationship and drug promotion to consumers. There was a 70 per cent response rate.

It is concluded that disease mongering represents only a part of pharmaceuticalisation albeit an important one. The pharmaceutical industry continues to produce new drugs
that are beneficial for diseases in which treatment options have been previously limited. The transformation of medicine from merely curing or alleviating disease to addressing risk factors such as high blood pressure, high blood sugar and high cholesterol has led to greater emphasis on the role of the individual to manage and control their own health and thus greater use of pharmaceuticals and their place in everyday life. In short, the demand for medicines is multi-factorial and addressing these is not as simple as banning DTCA. Policy needs to strike a balance between protecting the public from unscrupulous information and making sure consumers have access to the information they need to make informed decisions about their health. Independent information providers such as the National Prescribing Service (NPS) have an important role to play in this regard.

Publications arising from this research

Chapter 1: Introduction and Background

There is a set of expectations surrounding health and the body prevailing in western societies: we expect to feel well, without pain or disability, long after middle-age; we expect all children to survive birth and infancy, all women to give birth with no complications, all surgery and medical treatment to be successful.

Deborah Lupton, 2003

Chapter 1: Introduction and Background– Key Points

- Over the last 50 years our ‘expectations surrounding health’ have increasingly involved pharmaceuticals.
- Australia bans Direct to Consumer Advertising (DTCA) to consumers but allows promotion to doctors. Policies however, are not static but are open to change as the relative influence of stakeholders, and ideas about appropriate policy objectives change.
- Critics contend that Australia’s ban on DTCA is circumvented by the pharmaceutical industry through ‘disease awareness raising’ and ‘disease mongering’ activities.
- An opposing view of drug promotion to consumers is that of the ‘expert patient’.
- The opposing views offer different ideas about consumers and their social context. There has to date been only limited empirical investigation of either view.

Chapter outline

This chapter describes the political economic context of pharmaceutical promotion policy in Australia. The debate about the adequacy of current regulation is discussed with particular focus on the regulation of promotion to consumers and the idea of
disease mongering. The research questions are posed and the rationale, research plan and methodological approach are outlined.

Notes on definitions used in this thesis

1. The focus of this thesis is on pharmaceutical medicines that are only available by prescription from a doctor (excluding generic medicines as although they are prescription medicines, their promotion is primarily directed at pharmacists). These products are referred to variously in this thesis as: medicines, medications, drugs, pharmaceuticals and pharmaceutical products. In all instances these references are to prescription medicines and do not refer to over the counter (OTC) or complimentary, herbal or alternative medicines (CAM). This distinction is made as prescription medications exist in a particular regulatory environment, different to other remedies.

2. The pharmaceutical industry is referred to variously as: drug manufacturers, manufacturers and industry.

1 Introduction

Over the last 50 years our ‘expectations surrounding health’ have increasingly involved pharmaceuticals as these have come to form the “hard core of biomedicine”. Waves of pharmaceutical innovation have massively expanded the range of diseases and conditions that can be treated with a pharmaceutical product. The impact on individual and public health has been profound. Some drugs, oral contraceptives for example, are credited with inducing important social changes others have at least
become contemporary cultural reference points e.g. Prozac and Viagra.\[4, 5\] In Australia, as elsewhere, the diffusion of pharmaceutical innovation is often rapid and sustained (e.g. the use of lipid-lowering agents and anti-depressants).\[2, 6\] Australians use a lot of prescription medicines. In 2007-8 Australian doctors issued 82 prescription medicines per 100 consultations.\[7\] In 2010-11, Australia's Pharmaceutical Benefits Scheme processed over 180 million prescriptions, at a cost of $8.8 billion. The number of PBS subsidised prescriptions per person in the 2010-11 financial year was 8.4, compared with 8.3 in 2009-10.\[8\] For most, if not all Australians, prescription medicines are expected to play a major role in how their health is maintained or improved throughout their life.

The increased role of pharmaceuticals in contemporary medicine has not been an unmitigated success or without controversy. The cost of drugs has included adverse effects and bad health outcomes as well as requiring an increasing proportion of the public purse. Therapeutic disasters such as thalidomide and more recently rofecoxib (Vioxx) have resulted in innumerable deaths and disabilities and have generated (continuing) concern and calls for vigilance around drug safety.\[9\] Pharmaceutical innovations are of course patented commercial products where massive profits are possible from ‘blockbuster’ drugs (drugs applicable to large populations, e.g. cholesterol lowering drugs). New drugs tend to be more expensive and the wave of innovations particularly through the ‘golden age’ of pharmaceuticals 1980s to the 2000s\[10, 11\] increased medicine use and saw national drug bills soar.\[2, 12\] Reflecting developments world-wide, drug safety and rising drug costs have seen Australian governments develop extensive legislative and regulatory mechanisms to control for both.
In this thesis, the focus is on one particular set of pharmaceutical regulatory arrangements very directly aimed at controlling for safety and cost – the regulation of pharmaceutical promotion. The basic question I ask is: how and why do we regulate prescription drug promotion in the way we do that? This question is posed as a health social science question and as such presupposes that the regulation of prescription drug promotion is connected to how consumers are believed by regulators to act in regard to medicines. This reflects a basic sociological premise that our understandings and values give us all, policy makers as well as consumers, our reasons for action. Beliefs neither determine what we do nor are they always the most decisive element in our actions; our emotions, for example, are always important to what we do. Nonetheless, our cognitive and normative grasp of an issue, how we believe the world is and should be, is central to understanding policy.

Policies involve political contests; are struggles over ‘who gets what’ and often involves winners and losers.\[13\] Drug promotion policy impacts on the opportunities of pharmaceutical manufacturers to promote their products, for example manufacturers ‘lose’ in that currently Australia restricts promotion directly to consumers. Conversely, current Australian drug promotion policy permits self-regulated (i.e. by manufacturers) advertising directly to doctors; the critics of these arrangements ‘lose’ in their arguments for independent regulation.

Explaining who wins and who loses in a given policy contest involves an examination of the interests and power of those with a stake in the outcomes. However, policy emerges as interests (e.g. the federal government, pharmaceutical manufacturers, medical-professional associations, consumer advocacy groups) who interact with and
through cognitive and normative ideas that define policy problems, and identify programs, for policy action aimed at solving those problems.\[14\]

The initial idea motivating this research was the concept of ‘disease-mongering’ (discussed in detail below). This is a pejorative term that is applied to pharmaceutical manufacturers’ promotion activities, tactics and practices. Disease mongering posits that industry promotes diseases as well as their remedies.\[15\] Disease mongering is an explicit critique of drug manufacturers’ marketing strategies and also a critique of the policies currently in place to control drug marketing. Disease mongering provided my entry point to exploring the ideas about consumers that inhabit discourse and debate about drug promotion and peoples’ prescription medicine related behaviours. Ideas such as disease mongering make (or refer to) important empirical, normative and material claims about the world and how people think and behave. An initial review of the literature indicated that most Australian studies of consumers and prescription medicine use are utilisation studies asking questions about uptake, compliance and affordability (see for example McManus et al 1996\[16\], Hynd et al 2008\[17\]). Few Australian studies have looked at medicine related behaviour in general or in relation to drug promotion in particular. It appeared that much of what was claimed about consumer behaviour relied as much on assumptions or presumptions about consumer medicine related behaviours as on data gathered from consumers themselves.

In this study I undertook to more closely examine some of the claims that are made about consumers; in how consumers are presumed to behave, or to put in social scientific terms, how consumers are constructed as medicine users in both the disease mongering critique and other discourses around Australia’s drug promotion policy. My rationale for doing so rests on my own presumption that who wins and who loses in a
policy contest should be an outcome arrived at through a commitment to evidence based policy (EBP). I also believe that a social science perspective on consumers and drug promotion can contribute to policy by highlighting the social context of peoples’ medicine related behaviours.

Although I commenced the research for this thesis with a sceptical view of the benefits of drug promotion, my concern was not to set out to demonstrate that promotion is pernicious. Rather I wanted to take a social scientific look at the assumptions about consumers that inform the regulation and governance of drug promotion and explore the extent to which these assumptions are reflected in consumers’ reports of their medicine related behaviours.

In what follows, I describe the regulation and governance of drug promotion in Australia then discuss what critics identify as a problem with current regulation – disease mongering.

2 Background

The regulation and governance of pharmaceutical drugs emerges from the ‘nexus of power relations existing between the stakeholders in a social and political context’.\textsuperscript{18} Governance refers to the interactive processes through which social order and the coordination of activities towards collective goals is achieved.\textsuperscript{19, 20} The governance concept captures the particular mode of governing where economic and social objectives are achieved by coordination of acts between autonomous interests rather than hierarchical control and government fiat; and where the boundaries between
public and private become particularly blurred.[19] High technology industry sectors such as pharmaceutical technologies are typically characterised by extensive interactions between state agencies and private sector actors such as firms and industry associations – in Australia ‘Medicines Australia’. [21] Governance is an interactive process that involves networks and partnerships where the partners attempt to form a shared vision and develop a joint-working capacity. It involves ‘games about rules’ rather than ‘games under rules’ in establishing a largely self-governing network.[19]

The governance of pharmaceutical production and consumption is achieved within a social ‘field of consent’[18] negotiated between the many interests at play in the pharmaceutical sector. The processes of governance play out not only on the basis of these competing interests but also in the ideas that are used to support each interest’s claims. The centrality of competing interests has tended to obscure the importance of ideas in the development of pharmaceutical policy. [22] All policies are established and altered with reference to ideas of how the world is and how it should be.[14] Appeals for regulatory change seek to convince policy makers by drawing attention not only to evidence but to ideas - concepts, models and values purporting to describe and explain how the world is. The influence of an idea within policy at a given time will depend on the power of individuals and groups that champion the idea (and the effectiveness of the strategies used to promulgate it). However, influence will also depend on an idea’s normative and cognitive appeal for policy makers – an appeal intimately connected to prevailing intellectual and public sentiments. [13, 23, 24] Developments in Australia’s regulation of pharmaceutical promotion need to be seen in the context of the ideas that shape pharmaceutical regulation and governance more generally.
2.1 Regulation and Governance of Australia’s Pharmaceutical Sector

A longstanding feature of Australia’s regulatory control of therapeutic goods since Federation in 1901 has been the concern that promoting therapeutic goods too often involves ‘quackery’ and ‘extravagant or otherwise objectionable’ claims [25]. This concern has intensified as medicines have come to play an increasingly important role in most Australians’ pursuit of health. This is particularly true of prescription medicines which are among the most effective but also the most potentially hazardous treatments commonly used by doctors. Regulating prescription drug promotion is intended to minimise extravagant and objectionable claims and avoid the inappropriate, risky and expensive demand that could result.

The regulation of pharmaceutical products in Australia is based on the Australian National Medicines Policy. The core aims of the Australian National Medicines Policy are to achieve timely access to essential medicines at a cost individuals and the community can afford, the quality use of medicines and maintenance of a responsible and viable medicines industry.[26] The “provision of objective information and assurance of ethical promotion of medicines” is one of the building blocks of Quality Use of Medicines.[27]

Historically, after ensuring safety, efficacy and effectiveness, Australia’s pharmaceutical regulations have been primarily directed towards achieving equity of access, cost-containment and efficiency. These social and economic management objectives are chiefly pursued through the operation of the Pharmaceutical Benefits Scheme (PBS) a universally available pharmaceutical insurance scheme.[28] Successive Australian governments have vigorously pursued these objectives,
particularly cost containment, in the face of sustained criticism from manufacturers about the impact on business.\textsuperscript{[29]} Arguably, as Australian policy in general has developed along more ‘neo-liberal’ lines, supporting industry development has become an equally prominent policy objective.\textsuperscript{[21, 30]}

Governance of Australia’s prescription pharmaceutical sector involves extensive interaction between state agencies (such as Department of Health and Ageing and sub-units such as the Pharmaceutical Benefits Branch) and individual firms and their industry association ‘Medicines Australia’. Drug manufacturers have a breadth and depth of access to Australia’s regulatory institutions not shared by other interests, for example consumer advocacy groups.\textsuperscript{[21, 31]} Manufacturer representatives work alongside regulators as members of ‘working groups’ (the Pharmaceutical Industry Strategy Group and the Pharmaceutical Industry Working Group, for example). The partnership approach has resulted in industry having significant input into policy developments such as the implementation of the AUSFTA (Australian Free Trade Agreement) in 2005 and the F1/F2 (F1 = patented drugs; F2 = generic comparators) formulary reforms in 2007.\textsuperscript{[30, 32, 33]} Extensive interaction has not removed all differences and antagonisms. Australian governments continue to be committed to ‘rigorous economic management’ as shown in the more recent reforms around discounts, but they are also equally committed to supporting industry development (see Sterle 2008\textsuperscript{[34]}). One avenue taken by government to support industry development is to minimise the regulatory burden by allowing self-regulation of promotion to doctors.
2.2 Regulation and Governance of Prescription Drug Promotion

As in many other countries, a number of legislative and regulatory controls limit to whom, and how, a prescription drug can be advertised or otherwise promoted in Australia. All advertisements for therapeutic goods are subject to the provisions of the Therapeutic Goods Act 1989, the Therapeutic Goods Regulations 1990, and the Therapeutic Goods Advertising Code, 2007. Promotion is also subject to the requirements of the Trade Practices Act (1974). The Therapeutic Goods Administration (TGA), the agency responsible for evaluating the safety and efficacy of medicines and for licensing their use in Australia, is also responsible for control of drug promotion. See Table 1 taken from TGA Website[35] which describes regulatory responsibilities in relation to prescription medications.

Table 1: Regulatory oversight of pharmaceutical promotion

<table>
<thead>
<tr>
<th>Prescription Medicines</th>
<th>Advertising direct to consumers</th>
<th>Advertising to healthcare professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permitted?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Regulated by?</td>
<td>- TG Regs</td>
<td>- TG Act</td>
</tr>
<tr>
<td></td>
<td>- Medicines Australia code of conduct</td>
<td>- TG Regs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Medicines Australia code of conduct</td>
</tr>
<tr>
<td>Prior approval required?</td>
<td>n/a</td>
<td>No</td>
</tr>
<tr>
<td>Complaint handling process</td>
<td>TGA</td>
<td>- Medicines Australia Code of Conduct Committee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Complaints about non-members may be referred to TGA</td>
</tr>
</tbody>
</table>

The main objective of regulating drug promotion is public safety, however this is meant to be achieved without being excessively costly or restrictive of trade for drug manufacturers.[36] Drug promotion is an essential element of the prescription pharmaceutical business and has become more so as companies face a business environment of fewer new drugs in the development pipeline and patent expiry on
existing drugs.\textsuperscript{[37, 38]} As with other products, promotion is a key mechanism for stimulating drug demand and the profits necessary for further investment. Despite the commitment to industry development, Australian governments have elected to prohibit Direct to Consumer Advertising (DTCA) of prescription drugs while allowing promotion to doctors. The reason for this twofold approach lies in the perception that there is a marked difference in the capabilities of consumers and doctors to assess drug product information.

2.3 Permitting promotion to doctors

For drug manufacturers, drug promotion to doctors is a legitimate and necessary means to inform and educate doctors and enhance the quality use of medicines.\textsuperscript{[39]} In addition to directly advertising prescription drugs, promotion to doctors involves company representative visits (also known as ‘detailing’), mailing product information pamphlets, conducting and/or sponsoring educational events. Allowing manufacturers to use drug promotion as a competitive tool aimed at doctors assumes that industry self-regulation is effective in ensuring promotion is informative and beneficial and assumes that doctors’ professional expertise and ethics are sufficient to avoid any undue influence on prescribing.\textsuperscript{[36, 40, 41]} Critics of self-regulation strongly challenge these assumptions.

All promotion to doctors is self-regulated through manufacturers (ostensibly) complying with the Medicines Australia Code of Conduct. Virtually all prescription drug companies are members of Medicines Australia and compliance with the code is compulsory. The Code is intended to guide promotion toward supporting ‘quality use of medicines’ i.e. timely, safe and appropriate prescribing.\textsuperscript{[39]} The code was first drafted in 1960 and
since then has been regularly reviewed and modified (the review process is subject to independent audit) and is now in its 16th version. Medicines Australia is immensely proud of its code of conduct and considers it the ‘world’s best ethical framework’.³⁹

There is some support for this view. In 1992 the World Health Organisation reviewed the various pharmaceutical codes in operation internationally and rated Australia’s highest against a set of ethical criteria.⁴¹ Self-regulation via the code was also appraised positively by the Australian Government’s Productivity Commission in its 1996 review of the pharmaceutical industry.⁴²

For critics, the history of drug promotion in Australia shows the code to have been incapable of ensuring that promotion supports the quality use of prescription medicines.⁴³ Australian studies have shown that advertising is overwhelmingly concentrated on patented i.e. newer more expensive drugs⁴⁴,⁴⁵ at the neglect of older, cheaper but equally effective medicines. The quality of drug advertisements aimed at Australian doctors has been found to be poor⁴⁶ with advertisements making ambiguous claims⁴⁷ and using imagery intended to induce an “emotive connection” rather than realistic expectations of a medicine’s effectiveness.⁴⁴ Concern about the quality of the information provided in interactions between doctors and detailers and the impact on prescribing is long-standing⁴⁸ with more recent studies also finding the quality of information provided by representatives to be poor.⁴⁹-⁵¹ The provision of drug samples that doctors may then provide free of charge to patients, a common feature of company detailing, is considered to direct prescribing to newer, more expensive medicines.⁵²

For many critics one the most worrying aspects of drug promotion has been the largesse that frequently accompanies interaction between drug companies and doctors
and the conflict of interest that creates.\textsuperscript{[15, 53, 54]} Company representatives have often provided ‘gifts’ to doctors, for example, low dollar value office gifts such as stethoscopes and pens or personal gifts such as football tickets; as well as high dollar value gifts such as sponsoring travel to overseas conferences.\textsuperscript{[55]} With the educational or informational value of such gifts tenuous at best, such gifts are considered by many to be unlikely to support quality use of medicines and so are regarded as highly inappropriate.\textsuperscript{[53, 56, 57]} Company sponsored drug educational events have often involved expensive meals and entertainment. These are also seen as irrelevant to the primary objective of enhancing medicinal knowledge.\textsuperscript{[44]}

The code of conduct has been criticised as too vague, too weak and too often ignored. The ban on DTCA is frequently flouted and the promotion to doctors still too often extravagant.\textsuperscript{[58-60]} Of particular concern have been the monetary fines that can be imposed for breaches of the code. Although recently increased to $300,000 they are well below the maximum fines allowable under the Trade Practices Act (over $1 million) and are not considered sufficiently severe to ensure compliance.\textsuperscript{[44]} However, as will be discussed below, for most critics the greatest weakness of current arrangements is continuing industry self-regulation.\textsuperscript{[61-63]}

Critics of drug promotion reject the proposition that doctors are impervious to the effects of advertising and promotion. Marketing is argued to ‘fly under the radar’ of doctors’ critical faculties by using rhetoric and imagery that trigger shortcuts (such as ‘newer is better’ and ‘experts know best’). These shortcuts can relieve the busy prescribing doctor of the time and effort needed to carefully assess the claims about a drug.\textsuperscript{[64-66]}
Critics also reject the idea that doctors can adequately manage and avoid any potential conflict of interest arising from the receipt of hospitality or gifts. They argue that reciprocal obligations can be established by even the minor blandishments (a sponsored lunch, logo-bearing pens for example) that often accompany interaction between doctors and industry. Unwittingly or otherwise the ‘culture of gift-giving’ between drug companies and doctors creates an entanglement of interests that can directly conflict with the doctor’s primary responsibility to the interest of patients.

For some critics the main susceptibility of doctors to the influence of marketing is their ‘illusion of unique invulnerability’, the naïve assumption that they are somehow impervious to its effect. The bottom-line tells the story for critics “Pharmaceutical promotion works - it is inconceivable that pharmaceutical companies would do it if it didn’t.”

2.3.1 The ban on Direct-To-Consumer-Advertising

For proponents, DTCA has the capacity to inform and empower patients, improve doctor-patient communication, reduce under-treatment, non-compliance and improve the cost-effectiveness of drugs. The evidence for these benefits is limited. Presently the only industrialised countries to permit DTCA are the United States of America and New Zealand. Since first being used in the mid-1990s DTCA has become an increasingly important element of the promotion of new drugs in both countries.

In the US, expenditure on DTCA has grown from almost $1.1 billion in 1996 to $4.2 billion in 2005, a 330% increase.

Most observers agree that DTCA results in increased demand for the advertised drug. A lack of direct evidence on the health impacts of DTCA means the
extent to which increased demand has resulted in improved or poorer health outcomes isn't clear.\textsuperscript{[74, 78]} Nevertheless, critics point to a growing body of evidence showing the poor quality of information contained in DTCA and to therapeutic disasters such as the aggressively promoted but quite lethal Rofecoxib (Vioxx) to argue for the likelihood of DTCA doing a lot more harm than good.\textsuperscript{[79]}

Australia's ban on DTCA imposes a significant constraint on business activity but is an imposition that successive Australian governments don't appear willing to relax. Effectively a sustained rejection of the proposition that DTCA benefits more than harms consumers, the ban rests on the assumption that inexpert consumers rely on their doctor for guidance about medicines and that DTCA potentially undermines this guidance.\textsuperscript{[80]}

A major concern of critics is that DTCA is explicitly intended to excite interest and prompt the consumer to visit their doctor and either request the drug directly or ‘ask the doctor’ about it. The available evidence suggests that DTCA does prompt many patients to ask their doctor about the advertised medicine.\textsuperscript{[81]} Whilst communication between the doctor and the patient is generally encouraged and often lamented for not being adequate, DTCA prompted patient enquiries aren’t regarded positively by critics.

For critics, communication prompted by a drug advertisement starts with a patient already partly persuaded, possibly misinformed, and this potentially interferes with or undermines the doctor patient relationship.\textsuperscript{[73]} The doctor may have to correct the patient on the risks and benefits of the drug adding to the complexity, length and cost of a consultation to the patient and the government. A patient request for an advertised
drug appears to be regarded as coercive - the doctor either prescribes or potentially disappoints their patient. Some surveys have shown that the doctors can feel ‘pressed’ to prescribe by patient drug requests. Coupled with the fact that drug promotion is concentrated on newer drugs, the doctor is being pressured to prescribe not only a more expensive treatment option but one that has yet to fully be proven to be safe. DTCA typically commences within the first year of approval for marketing.

The idea that DTCA is intended to, and is effective in, prompting patients to inquire about or request a medicine from their doctor; and that this is likely to interfere with the doctor-patient relationship, features prominently in the deliberations of Australia’s various regulatory actors. In 2000 the Review of Drugs, Poisons and Controlled Substances Legislation (known as the ‘Galbally Review’) was undertaken to investigate and evaluate the coherence and efficiency of Australia’s system of legislative controls and estimate their impact on competition. In considering current regulatory controls the Review followed the National Competition Policy Principles – these principles seek to ensure that controls are set at the lowest possible level without compromising the public interests i.e. minimal regulatory burden. The Galbally Review is the most extensive official consideration of the prohibition on DTCA in Australia to date.

The Review considered the range of benefits and costs of the current prohibition of DTCA. The review acknowledged that the DTCA ban did result in some restriction on competition but that this was warranted because consumers “may have little real capacity to evaluate information”. Also that patient requests and expectations for the drug are problematic for the time that it may add to a medical consultation, with the doctor having to explain why a particular drug may not be suitable for the patient, and the resentment that might result where the advertised drug is not prescribed.
The deliberations of other major regulatory actors similarly show the central concern with DTCA is that doctors are likely to be pressured by poorly informed patients towards sub-optimal prescribing. In 2004 the Pharmaceutical Health and Rational Use of Medicines Committee (PHARM) conducted a review of DTCA and concluded that DTCA prompts patients to speak to their doctor about an advertised medicine and that the prevailing ‘consumerism’ that gives patients greater influence on their doctor’s prescribing decisions, can place pressure on doctors to prescribe. The Australian Medical Association (AMA), the peak organisation for representing the interests of doctors, position statement on DTCA focuses on the capacity of DTCA to “undermine” the patient-doctor relationship. Exposure to DTCA (unlikely to be “broad balanced and inclusive”) may lead to stressed and worried patients demanding medicines “…inappropriate for them, unnecessarily increase healthcare costs, and undermine quality use of medicines”.[83]

There have been a number of attempts by manufacturers to have Australia’s ban lifted or relaxed.[74, 78, 84, 85] The ban remains and DTCA does not appear to be on the cards for Australia in the near future. The proposals (currently shelved) for harmonising Australia’s and New Zealand’s pharmaceutical regulatory systems mooted New Zealand moving closer to Australia’s ban on DTCA rather than the reverse.[74] The possibility of future policy change is discussed further below.

2.4 Circumventing the ban on DTCA

Although the ban on DTCA is still in place, for many critics it is inadequate.[86] Critics point to various ‘loopholes’ in the industry’s Code of Conduct that allow companies to
raise public awareness of conditions through the use of the media and ‘unbranded’ product advertising.\(^{[87-89]}\)

\[2.4.1 \hspace{0.5cm} \textit{Disease awareness raising} \]

As in other countries that ban DTCA, drug companies are allowed to sponsor ‘disease awareness raising’ campaigns.\(^{[15, 78]}\) Drug company advertising that describes a condition and recommends consumers talk to their doctor, has become relatively commonplace in Australia.\(^{[90]}\) These campaigns typically describe symptoms of a condition in the widest possible terms, use emotive (arguably inappropriate) imagery and entreat consumers to ‘Ask your doctor…’ about available treatment.\(^{[15, 78]}\)

Industry defends these practices saying that they are providing information to consumers about misunderstood, under-diagnosed, or under-treated conditions.\(^{[15, 91, 59]}\) Raising awareness about conditions through the media and elsewhere is argued to be an appropriate way to ensure that consumers are exposed to important information that they may not otherwise have access to.\(^{[92, 93]}\) Manufacturers contend that disease awareness promotion makes people aware of potential problems earlier, empowering the consumer and enabling them to have informed conversations with their doctors, who have the expert knowledge as to the best course of treatment, if any.\(^{[94, 95]}\) Many campaigns have been aligned with consumer advocacy groups.\(^{[15, 96]}\) For example, Pfizer launched a National Cholesterol Awareness Campaign in 2008 in conjunction with the Australian Atherosclerosis Society.\(^{[97]}\) While manufacturers refer to these advertisements as ‘disease education’ they are considered by some to be ‘de facto DTCA’.\(^{[89]}\) It has been shown that at least some of these campaigns are misleading and to be aimed at the widest range of consumers as possible.\(^{[78, 98-100]}\) For some observers
of drug promotion, industry sponsored disease education is closer to ‘disease mongering’. [68, 78, 101]

2.5 Disease Mongering

2.5.1 Search strategy

Published peer reviewed literature focussing on disease mongering was the subject of the review. The term disease mongering was coined in 1992; therefore, the search was limited to 1990-2011 inclusive. The electronic bibliographic databases Medline, PreMed, Embase, Psycinfo, CINAHL and Scopus databases were searched using the key search term ‘disease mongering’ for English language papers. The initial search took place in 2008 and was added to through the life of this research.

2.5.2 Scope of the literature

Literature that highlights how disease mongering is purported to manifest itself (case studies); discusses how consumers are influenced by it; and texts that have disease mongering as the main focus of the content were particularly scrutinised.

2.5.3 Search results

A total of 362 articles were located over the study period. The titles and abstracts of electronically identified articles were reviewed. A total of 260 were deemed potentially relevant and retrieved for further study. The reference lists of relevant articles were
then used to identify other potentially relevant articles. Using reference lists, Google Scholar and literature identified at the direction of key informants in the in-depth interview stage of the study (Chapter 3), ‘grey literature’ publications were also identified and retrieved.

Many of the articles identified in the original search focussed topics tangential to this review such as biomedical processes involved in diagnosis, or specific treatments for specific conditions. There were also many articles devoted specifically to analysis of direct to consumer advertising (DTCA) of pharmaceutical products. As DTCA is not permitted in Australia, these articles were excluded unless they revealed how disease mongering can function in countries that do not allow it. Therefore, articles that referred to disease mongering indirectly or as an argument for or against DTCA were excluded.

One-hundred and ten articles were judged relevant to provide an understanding of how consumers are characterised in the critique. This characterisation emerged through how the literature defined, and discussed the tactics and consequences of disease mongering.

Disease mongering is a term used by critics to refer to drug companies’ involvement in informing the public and professionals about the illnesses targeted by their products.\[15, 102-106\] Typically, a drug company is accused of misshaping perceptions of a disease or condition, or more pertinently, the perception of what is ‘normal’ and what is not and what therefore should be treated.\[15, 68, 78, 102, 104, 107-113\] The claim is that disease mongering promotional tactics misinforms consumers, leading them to demand medicines that in many cases are unnecessary, potentially exposing them to
unpleasant or harmful side effects and needless expense.\textsuperscript{[15, 106, 114]} Bi-polar disorder, osteoporosis and erectile dysfunction for example, are some of the conditions argued in the literature to have been ‘mongered’.\textsuperscript{[105, 115-117]}

While disease mongering as a term was coined in 1992\textsuperscript{[118]} the practices and tactics attributed to those doing the mongering have existed for a long time. For example, antecedents were the ‘Nostrum-mongers’ who advertised 19\textsuperscript{th} century patent medicine,\textsuperscript{[102]} or those who ‘sold’ halitosis to the American public in the 1920’s as part of marketing Listerine.\textsuperscript{[119]} Traditional faith healers in developing countries have also been accused of employing disease mongering methods (albeit on a much smaller scale than multinational pharmaceutical companies). As described by Giri and Shankar (2007):

“In South Asia, evil spirits, adverse planetary positions, black magic and witchcraft have been regarded as responsible for disease, ill health and misfortune. Priests, astrologers and shamans often warn their devotees and clients about forthcoming misfortune. They then suggest a pre-emptive ritual or puja to ward off the misfortune. The rituals are expensive and the family has to offer something (usually rice, a goat, a cock or money etc.) to ‘pacify’ the spirit”.\textsuperscript{[120]}

Although few Australians will experience shamans warding off evil spirits at the cost of a goat, the term ‘disease mongering’ points to much the same process.

2.6 Disease mongering techniques and tactics

Since Lynn Payer\textsuperscript{[118]} coined the term disease mongering and developed a list of the major disease mongering tactics, they have been further developed by other critics (see Table 2 over).
Disease mongering has been defined variously as “extending the boundaries of illness”,[110] “widening the boundaries of treatable illness in order to expand markets for those who sell
and deliver treatments";\textsuperscript{[68]} “a vicious circle in which businesses invent new diseases to match their existing drugs”;\textsuperscript{[122]} to “convince people that their usually mild ailment urgently needs drug treatment”;\textsuperscript{[122]} to sell the disease rather than the cure, for example, instead of selling Viagra (sildenafil), you sell sexual dysfunction, instead of selling Zyprexa (olanzapine), you sell bipolar disorder.\textsuperscript{[105]}

Disease mongering techniques may involve the medicalisation of normal human variation or the depiction of risk factors as diseases\textsuperscript{[68, 117, 118, 123-125]} creating a situation where, according to Mintzes (2002) there is a “pill for every ill and an ill for every pill.”\textsuperscript{[77]} There are extensive examples of pharmaceutical companies medicalising ailments that used to be viewed as inconveniences, a normal part of the aging process or social issues rather than diseases.\textsuperscript{[15, 22, 102, 105, 109, 114, 124, 126-128]} These include for example; mild forms of depression and anxiety, ADHD, social anxiety disorder, intermittent explosive disorder, attention deficit disorder, irritable bowel syndrome, restless legs, low bone mineral density, hypercholesterolemia, erectile dysfunction, pre-diabetes, prehypertension, premature ejaculation and female sexual dysfunction.\textsuperscript{[22, 77, 112, 125, 127, 129-133]}

Some conditions appear to be more ‘ripe’ for mongering than others, such as those that are created and marketed for life-style or psychological conditions. The creation of life-style drugs, “any drug intended or used for a problem that falls into the border zone between the medical or social definitions of health”\textsuperscript{[134]} or “those intended to treat diseases that result from a person’s lifestyle choices”\textsuperscript{[134]} may be more likely to involve disease mongering\textsuperscript{[106, 110, 135]} as are some drugs used in psychiatry.\textsuperscript{[136-138]} These drugs treat ill-defined conditions for which there is no objective test, that are easy to promote, self-diagnose and ‘ask the doctor’ about and are viewed by industry as a ‘growth market’.\textsuperscript{[116, 136]} This growth market depends on
narrowing the definition of what it means to be normal, to convince people that any imperfection falls out of these boundaries.\textsuperscript{112}

Critics don’t deny the existence of these disorders (e.g. ADHD), the severity of symptoms or the value of medical treatment for many sufferers. What is argued is that each reflects a problematic widening of disease definitions that enables and legitimises medical intervention for as many people as possible\textsuperscript{22, 139-143} and “exploits the blurry line between enhancement and treatment in order to sell drugs.”\textsuperscript{113} Critics also acknowledge that establishing that a particular condition has been disease mongered can be problematic.\textsuperscript{114} For every disease that has had its boundaries expanded, there are undoubtedly some people who genuinely suffer from the condition.\textsuperscript{114} For these people, raising awareness about a disease means they may seek genuinely needed treatment.

Critics’ main concern is that marketing or ‘branding’ a disease results in excessive drug demand – with many people using a drug that they don’t need, won’t help them or could even make things worse.\textsuperscript{15, 64, 106, 114, 144} Disease mongering is increasingly described as a public health problem.\textsuperscript{108, 136} because it creates unwarranted concern;\textsuperscript{106} unnecessary use of medical services and technologies;\textsuperscript{15} wastes resources on more trivial lifestyle conditions or risk factors that may never result in illness,\textsuperscript{134} rather than more serious diseases,\textsuperscript{68, 78, 144, 145} unnecessary patient exposure to risk; and the narrowing of treatment options to saleable products.\textsuperscript{116, 129, 130, 136, 146} A major concern is the individualisation of health at the cost of neglecting wider factors such as the environment. As Heath (2006) warns “where individualised solutions become prevalent, societal, population-based interventions tend to fall away, and the result is worsening health inequalities”\textsuperscript{106} because the intervention is individualised and idiosyncratic rather than societal.
For some critics disease mongering is now so ubiquitous, that it is the rule, rather than the exception in pharmaceutical promotion.\cite{118, 121} Below I briefly describe how disease mongering is claimed to be practised, giving examples of techniques and cases where these have been employed.

The following flow chart (Figure 1) outlines a model for drug market expansion.\cite{126}

**Figure 1: Model for drug market expansion**

"A party with a financial interest in a disease (most commonly a pharmaceutical company with a new medication or old medication seeking a new market) will find key opinion leaders to support the company’s medication; approach and often support patient awareness groups to raise the disease profile; and employ public relations firms to combine the ‘science’ with the disease to make the public and health professionals aware of a serious, under diagnosed but now treatable illness. In some instances this will be beneficial to public health but when the disease is actually benign, uncommon or untreatable then ‘disease mongering’ can have adverse consequences;"\cite{126}
Example 1

In 2002, pharmaceutical manufacturers Wyeth, Pfizer, GlaxoSmith-Kline and Eli Lilly combined resources to support a ‘depression screening’ campaign targeted at young adults attending United States high schools and universities\(^\text{[107]}\). The campaign adopted youth oriented language to promote free screening for the feelings, moods and stresses that are indicators of a pathological depressive state treatable with anti-depressants\(^\text{[147]}\). The validity and reliability of the tools used to screen for depression have been characterised as simplistic and as suspicious having been developed by the anti-depressant manufacturers themselves\(^\text{[109]}\). The campaign presents the diagnosis of depression as straightforward and its pharmacological treatment as uncontroversial. A similar but broader US based initiative, National Depression Screening Day also sponsored by major pharmaceutical manufacturers, sets “new records” for depression diagnosis at each application\(^\text{[109]}\).

Example 2

In 2001 medical communications company ‘In Vivo’ was commissioned by pharmaceutical manufacturer GlaxoSmithKline to devise a pre-launch strategy capable of establishing irritable bowel syndrome as a ‘credible, common and concrete’ disease among medical professionals in order to generate sales for its related drug Lotronex (alosetron)\(^\text{[122, 148]}\). The strategy involved recruiting leading gastroenterologists as advisors and advocates; creating a newsletter for circulation among specialists; commissioning advertorials for placement in medical magazines and establishing a patient support programme. This campaign was stopped prematurely on the withdrawal of Lotronex (alosetron) following a series of serious adverse reactions\(^\text{[122]}\).

Table 3 below provides some further details of techniques and examples of disease mongering ‘in action’.
<table>
<thead>
<tr>
<th>Technique</th>
<th>Comment</th>
<th>How the technique works</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisements urging ‘at risk’ individuals to ask their doctor about a condition and its treatment</td>
<td>An advertisement suggests potential patients should speak to their doctor about an available treatment. Parallel marketing to doctors ensures they are prepared for patient questions.</td>
<td>Medicines for erectile dysfunction such as Viagra®, Levitra®, Cialis®.</td>
<td></td>
</tr>
<tr>
<td>Media releases</td>
<td>Media releases highlight new and existing medicines as treatment breakthroughs. Potential patients are encouraged to ask their doctor about the treatment.</td>
<td>Treatment of glaucoma with Travatan®.</td>
<td></td>
</tr>
<tr>
<td>High profile community groups</td>
<td>The funding of community groups by pharmaceutical companies associates the medicine with respected causes.</td>
<td>The sponsoring of the Healthy Weight Task Force by Roche, the manufacturer of the weight loss drug Xenical®.</td>
<td></td>
</tr>
<tr>
<td>Expert opinions</td>
<td>Expert opinions are provided to boost a medicine’s media profile or counter adverse news items.</td>
<td>‘Expert’ opinions from people with pharmaceutical company relationships were used to counter news of an adverse association between hormone replacement therapy (HRT) and breast cancer.</td>
<td></td>
</tr>
<tr>
<td>Sponsoring journalists</td>
<td>Pharmaceutical companies sponsor journalists to attend conferences that focus on issues related to the company’s products.</td>
<td>Media reports highlighting the rising rate of impotence were written by journalists sponsored by Pfizer to attend a conference on impotence in Paris, where the journalists noted, Pfizer’s representatives argued that their drug, Viagra®, should be listed on the Australian PBS.</td>
<td></td>
</tr>
<tr>
<td>Public awareness campaigns</td>
<td>A health issue as a public health campaign. ‘At risk’ are advised to seek advice and treatment from their physician.</td>
<td>Erectile dysfunction has been a high profile campaign sponsored by pharmaceutical companies without mentioning specific medicine brands.</td>
<td></td>
</tr>
<tr>
<td>Disease awareness</td>
<td>Using the above approaches the community is made aware of an existing disease or a normal human condition is promoted as a treatable illness. The aim is to send potential patients to doctors with requests for treatment.</td>
<td>As Merck Sharp &amp; Dohme were marketing the anti baldness drug Finasteride®, quotes from ‘experts’ appeared in the media suggesting baldness was associated with emotional disorders, reduced employment prospects and lower wellbeing. The quotes were provided by the same public relations firm running Merck Sharp &amp; Dohme’s campaign.</td>
<td></td>
</tr>
<tr>
<td>Promotion of off-label use of drugs</td>
<td>Pharmaceutical companies promote their drugs to physicians for conditions they are not approved for, or for symptoms that do not meet the full diagnostic criteria of approved conditions.</td>
<td>Lilly has paid a settlement of (US) $1.145 billion for off-label marketing in primary care settings of Olanzapine (Zyprexa®) a drug approved for treatment of bipolar 1 disorder and schizophrenia. It was found that detailers were instructed to market the drug for symptoms of those conditions that did not meet the full diagnostic criteria, as well as for a condition it was not approved for (dementia).</td>
<td></td>
</tr>
</tbody>
</table>


Table 3: Disease mongering examples
As the tables and examples show, due to the efforts of investigative journalists and academic researchers, there is now a well-documented catalogue of cases where drug promotion has involved questionable practices, misinformation and disease mongering. The examples also show that raising disease awareness among both medical professionals and the general public is diffuse and multi-faceted in nature. Advertising and detailing (industry representatives providing detail regarding a product to doctors) are coupled with establishing informal alliances between manufacturers, health professionals and patient support groups who collaborate to promote awareness of certain disorders. The news media play an important role in this process as a medium for disseminating disease and therapy information.

The extent to which drug promotion in Australia constitutes disease mongering is difficult to tell. Certainly, drug manufacturers reject the claim that promotional practices such as disease awareness advertising should be labelled as disease mongering. Advocates claim DTCA educates patients about conditions and treatments and reduces inappropriate use. For some supporters of DTCA, banning DTCA is seen as unjustified paternalism and they argue that consumers have a right to autonomously decide what kind of medicinal product is appropriate for them. In reviewing the development of DTCA in the US and New Zealand, Hoek and Glendall (2002) judged the evidence for the harms of DTCA to be predominantly anecdotal rather than empirically established. Overall, they argue that the benefits arising from DTCA outweigh the posited but largely unproven disadvantages thought to be associated with it. They conclude that the logic of banning DTCA is questionable. In allowing manufacturers to conduct ‘ask your doctor’ advertisements it can be inferred that regulators see these as providing some benefit to consumers i.e., that this kind of industry sponsored promotion can helpfully raise awareness of a condition rather than ‘monger’ a disease. Regulators, it would appear, do not want consumers to be
advertised to, but do want them to be informed about conditions and treatments and believe manufacturers can responsibly perform this function.

3 Discussion

Regardless of how it is characterised, drug promotion to consumers is a fact of life in contemporary Australia. There’s reason to believe that with the growth of the internet and new media, drug manufacturers may have greater opportunities to market their products to consumers.\[161\]

In the continuing prohibition of DTCA, Australian policy has elevated and maintained patient safety as the primary consideration in regulation of drug promotion to consumers (as well as cost to the PBS). There does not presently appear to be significant pressure from manufacturers to reverse the DTCA ban. There is evidence to suggest that the ban isn’t entirely adequate to prevent practices such as disease mongering surreptitiously promoting prescription medicines to consumers. The lack of industry calls to relax the ban on DTCA might be explained by manufacturers being relatively satisfied that they are able to circumvent the ban through indirect promotion such as disease awareness advertising. Critics on the other hand have called for further regulatory changes to eliminate the ‘loopholes’ that allow the ban to be circumvented.

Regulation and governance involves a dynamic process where the power of stakeholders and their capacity to influence policy can wax and wane.\[18, 111\] Australian policy makers face the challenge of minimising the harms of excessive drug promotion
while also seeking to avoid constraints that are contrary to the partnership approach and the goal of industry development. In many areas of pharmaceutical regulation, marketisation is preferred by influential policy actors and according to Lofgren (2009)\(^{162}\) there has been an increased influence of the pharmaceutical industry’s ideas and interests. With the regulation and governance of drug promotion, however, the industry has failed to persuade government, doctors and consumers (or at least their peak associations) to align with its framing of promotion as conducive to good quality prescribing. On the contrary, these stakeholders have aligned with the alternative framing of drug promotion as an activity with detrimental effects on quality health care.

The criticism that drug promotion puts profit before patient safety has ensured that DTCA remains banned and that regulation of promotion to doctors has been reinforced. The industry has been compelled to strengthen its Code of Conduct and now once commonplace practices such as offering logo-bearing gifts are prohibited. Medical professional groups such as The Royal Australian College of General Practitioners and The Royal Australian College of Physicians have created or modified their ethical guidelines around drug promotion.\(^{67}\) The government has also imposed transparency measures and threatened further intervention if industry fails to more effectively self-regulate. Some of the largest manufacturers (e.g. Astra Zeneca, Pfizer) recently have called for the next version of the Code of Conduct to require disclosure of all payments to individual doctors.\(^{163}\)

Strengthening regulation and governance of drug promotion demonstrates the power of grass roots activism of the type described and supported by Braithwaite (2003).\(^{164}\) The media and mostly critical attention given to drug promotion has also made it a very public issue; drug promotion is a policy issue involving journalistic staples such as
conflict of interests. Public health and consumer advocates have attracted attention and presented a compelling case for the harms of drug promotion. In contrast to the limited evidence to demonstrate the benefits of drug promotion there is considerable research linking drug promotion and ‘therapeutic disasters’ such as Vioxx. Critics also draw on a poor public image of drug companies in general to reinforce their arguments.[165] Industry funded disease awareness campaigns are portrayed as attempts to get around the ban on DTCA and as more evidence of drug manufacturers’ relentless pursuit of profit.[44] To some critics, that a drug company must generate profits and always act to maximise return to investors leads it towards reckless promotion.[79, 98, 166] These factors sum to a position that is; drug companies cannot responsibly and ethically promote drugs and therefore self-regulation will not work.

The arguments against drug promotion have shifted regulators’ perception of doctors as ‘learned intermediaries’ impervious to promotion. When the Galbally Review was conducted in 2001, doctors were not judged to need to be protected from drug promotion. Instituting the ACCC’s requirement for disclosure indicates acceptance of the argument that a doctor’s expertise and ethics alone are not sufficient to avoid a negative influence and conflicts of interest. Whether the mechanisms of influence are subliminal messaging, creating reciprocal obligation or greed, regulators accept industry promotes prescription drugs because it believes it influences prescribing. Some doctors disagree[167] but it is now widely accepted that doctors often cannot avoid drug promotion negatively impacting on what, and how, they use medicines.

Australia’s pharmaceutical drug promotion policy is shaped in a pluralist policy context where, what Lofgren and Boer (2004)[21] describe as a ‘loose oppositional assembly’ of critics mobilising a coherent set of ideas has managed to have a significant impact.
However, critics push for more regulation of promotion is challenged by manufacturers and governments committed to the idea of economic growth and minimising the regulatory burden on business. The government’s response to the sustained critique of drug promotion has been to seek to make the current system of self-regulation more stringent – transparency through disclosure, urging the industry to modify its Code of Conduct. Drug promotion, however, continues to be self-regulated by drug companies (rather than externally and independently controlled). In a political economy of regulatory capitalism\textsuperscript{168} governments prefer to be at a distance and coordinate outcomes via meta-regulation. Critics of drug promotion can get only so far in a political and economic environment that demands support for business. In allowing drug promotion to doctors to be self-regulated the government is erring on the side of caution in terms of the presumed risk of over-regulation and harming business confidence. In contrast, with the continuing ban of DTCA the government errs on the side of safety, and is willing to restrict the opportunity of manufacturers to promote their products.

4 Conclusion

Existing regulation of pharmaceutical marketing has emerged through the historical tensions between the state ostensibly acting in the public interest and the private interests of pharmaceutical manufacturers. The ‘field of consent’\textsuperscript{18} regarding prescription pharmaceutical promotion policy in Australia appears settled on the primacy of safety; drug promotion being allowed directly only to doctors, and this must conform to a self-administered code of ethics. The ideas of minimal regulation and not getting in the way of business have considerable influence on policy, and manufacturers continue to self-regulate drug promotion. Competing interests are rarely
mutually exclusive or finally resolved. Public policy is a matter of balancing interests and is an evolving rather than static process. For critics of pharmaceutical marketing, current regulation is inadequate with practices decidedly favouring private interests, including what some label disease mongering, allowed to flourish. For manufacturers, marketing is already too heavily regulated and risks reducing industry competitiveness.

Policies do change, however. As described, although manufacturers still self-regulate drug promotion, criticism of promotion to doctors has resulted in a number of additional restrictions on how a drug may be marketed. It is possible that future regulatory changes will be made to further restrict promotion and address the challenges that the internet and social media pose for quality use of medicines. It is also possible that regulation around drug promotion will move in the opposite direction and be relaxed. If this appears unlikely in the short term, given that the potential for drug promotion to be problematic appears to be more readily accepted by policy makers, the longer term is much harder to predict. A more ‘relaxed’ policy could come about by default, for example, by policy not changing to meet to new promotional avenues like social media. A more relaxed policy might also come about because of a shift in ideas relevant to the policy debate

The DTCA ban rests mainly on the idea of patients as inexpert, vulnerable and in need of protection. But this idea has been challenged by advocates of drug promotion who argue that the view of consumer as vulnerable neglects or minimises the increased capacities of consumers; consumers are more ‘expert’ than they are given credit for. Given the strength of the ‘expert patient’ discourse in debates about drug promotion overseas, and the multi-national structure of the pharmaceutical industry, there is no reason to believe that arguments in favour of DTCA won’t be presented to Australia’s
regulators in the future. The pharmaceutical industry, because of factors such as fewer ‘block buster’ drugs in the ‘pipeline’ and patent exist drugs, has given greater effort and resources to drug promotion. Internationally multinational manufacturers have lobbied regulators to allow DTCA using the ‘expert patient’ argument.\[169\]

Has current regulation got the right idea about how people behave with regard to prescription medicines? The fact is we don’t currently know that much about consumer medicine related behaviours or how drug promotion fits into people’s prescription medicine decisions. Many of the claims and counter claims for the harms and benefits of drug marketing reflect ideological commitments as much as the available evidence.\[80, 170\] Considerable effort has been spent by academics and journalists in looking at the way drug manufacturers sell their products – their advertising, their interactions with doctors, patient groups and regulators. But there has been limited investigation of consumers and drug promotion. Information about how consumers act with regard to drug promotion has largely been sporadic and explored using hypothetical scenarios.\[171, 172\] Although current regulation (in continuing the ban on DTCA) appears to more closely align with the ideas of critics of drug promotion, much of the critique is based on (albeit ‘educated’) guesses or assumptions about how people behave.

The research for this thesis involved looking more closely at some of these assumptions about people, as patients and consumers, and the social context of medicine related behaviours. I chose to focus on the claims of critics because: 1 – the continuing ban on DTCA suggests that the idea that drug promotion is problematic currently has most policy traction; and 2 – it is critics of drug promotion who are currently agitating for strengthening regulation.
5 Rationale and Research Plan

5.1 A Health Social Science approach

The research has been conducted as a health social science inquiry. Health social science is defined as a ‘transdisciplinary’ application of social and behavioural science theories and methods, in active partnership with complementary knowledge from the biomedical and health sciences.\[173\] Transdisciplinary research involves a systematic but creative process of synthesising knowledge drawn widely from diverse disciplines to gain novel insight and understanding of a research problem.\[173\] This research combines the concerns and methods of policy analysis, pharmaco-epidemiology and sociological perspectives to understand drug promotion regulation and consumer medicine related behaviours. As a health social science investigation, the thesis chiefly applies the social scientific theoretical framework of pharmaceuticalisation.

5.2 Research questions

The key research questions examined for this study were:

1. How are consumers constructed in the critique of drug promotion and the regulation of drug promotion?

2. Are the assumptions of critics reflected in consumers’ reports of their medicine related attitudes and behaviours?

A series of studies was undertaken to investigate these questions, the methods and results of which are described in Chapters 2, 3 and 4.
5.3 Methods overview

The research was undertaken using both quantitative and qualitative methods and employed ‘triangulation’ to explore policy development, ideas and medicine related behaviour. Triangulation is a methodological strategy of using different perspectives, methods and data to illuminate a research problem.\cite{173} Qualitative data were collected using open-ended interviews and were analysed using an interpretive methodology. Quantitative data on consumer attitudes and medicine related behaviours were systematically collected using a structured survey questionnaire and statistically analysed. Further details of methods are provided in the relevant chapters.

The background and rationale for this research has been described in this introductory chapter. A brief outline of the content of subsequent chapters is described below:

- **Chapter 2 In-depth Interview Study**
  In Chapter 2, I describe the results of an interview study undertaken with a sample of critics of drug promotion and disease mongering. The interviews were used to describe how the principal stakeholders in the regulation of drug promotion, particularly consumers, are perceived by critics. Critics’ views and ideas are then examined in relation to the emerging descriptive, social scientific framework of ‘pharmaceuticalisation’.

- **Chapter 3 Media Study**
  How three theoretically sampled conditions were portrayed in the main stream media over a six month period in the Lower Hunter region of NSW, Australia is examined in this chapter.
➤ **Chapter 4 Community Survey Phase**

The results of a community survey conducted in the Hunter region of NSW, Australia are reported in this chapter. The survey focussed on consumers’ health related opinions and behaviours. Some of the analysis in this chapter was the basis of a peer reviewed article in the journal PLoS One.


➤ **Chapter 5 Discussion and Recommendations**

The discussion based on the research conducted for this thesis is presented in this chapter. Policy implications and recommendations, as well as implications for further research are also provided.

This project has received ethics approval from The University of Newcastle (H-2008-0071).
Chapter 2: In-depth Interviews

Chapter outline

The results of an in-depth interview study are presented in this chapter. This qualitative study was undertaken to gain a better understanding of the criticism and its claims than could be derived from a review of the literature. The participants were critics of drug promotion and able to provide additional insight into disease mongering and how consumers are constructed within the critique. The themes identified in the interview data are discussed in relation to the disease mongering literature and then analysed in reference to ‘biomedicalisation’ and ‘pharmaceuticalisation’.

1 Introduction

Although a relatively new idea in public discussion about pharmaceutical demand and public health, ‘disease mongering’ has gained considerable currency.\[110\] Disease
mongering frequently appears in commentary on pharmaceutical marketing in the popular news media (commonly ‘scare-quoted’ or italicised) but is particularly prominent in the medical-scientific/public health professional media.[68, 101, 126] Disease mongering has been the subject of an academic conference and the theme issue of high impact medical science journal (PLoS Medicine 2006) the phrase has been discussed in the pages of the New York Review of Books[107] and has significant web presence through Wikipedia and in the commentary on numerous blogs. There is some evidence that disease mongering has become something more than a handy journalistic trope. The prominence given to disease mongering in the conclusions of a UK Parliamentary inquiry[174] suggest significant conceptual traction.

One example of the traction disease mongering critique has gained is evident in an artistic parody of drug promotion. In 2007, New York’s Daneyal Mahmood Gallery exhibited ‘Havidol’ a work consisting of faux advertisements for a fictional prescription drug for an equally fictional condition - Dysphoric Social Attention Consumption Deficit Anxiety Disorder. The Havidol (‘have-it-all’) parody generated extensive international public attention for both the artist, Australian Justine Cooper, and the target of her satire – pharmaceutical promotion and disease mongering. The glossy, attractive advertisements (see Figure 2) of the exhibition are notable for not only capturing the slick and persuasive presentation of drug advertising but for artfully voicing the critique; drug promotion sells the sickness as well as the (putative) remedies.
The Havidol is an artist’s impression of drug promotion and what it means. Nevertheless as a commentary on aspects of contemporary social life it shows an element of the disease mongering critique that is largely left implicit in academic writings. The Havidol parody and the wider disease mongering critique are clearly aimed at drug companies and what they do to influence the demand for drugs. In evoking the similarly pejorative ‘war mongering’ or ‘fear mongering’, the disparaging connotation of disease mongering is clear. The antithetical pairing of ‘disease’ – possibly the last thing most would want to buy with ‘mongering’, a particularly febrile synonym for selling – explicitly derides the seller. However, as the Havidol advertisement clearly indicates, the disease mongering critique reaches further than drug companies. The glossy advertisement, featuring a beautiful young woman (another of the Havidol advertisements features a handsome, athletic young man at the edge of a pool) and the pithy slogan are instantly recognisable elements of contemporary consumer marketing. As the artist made clear, the parody isn’t confined to the actions of drug companies but extends to us all and the ‘culture of consumerism’ and pursuit of “a life without pain, only gain” (Cooper 2007 [http://havidol.com]). In Havidol, consumers are placed in the pillory alongside the drug marketers. “When more
is not enough” mocks the advertisement: the phrase suggesting that the seller is pitching to a grasping public, never satisfied, always wanting more.

The Havidol parody and perhaps the wider disease mongering critique appear to perceive medicine users as not only inexpert and vulnerable patients but also as willing and eager consumers. As noted in the Introduction chapter, the published disease mongering literature mostly consists of the descriptive reports and critical commentary of cases of (alleged) disease mongering; cases of aggressive product promotion and general critiques of pharmaceutical promotion. This qualitative study was undertaken to gain a better understanding of the criticism and its claims than could be derived from a review of the literature. While the written works of these participants were available to draw on, an extempore account of the ideas and beliefs about the concept was undertaken to gain a better understanding of how these authors construct the consumer. In-depth interviewing allowed the informants more scope to discuss the subject “in a depth they have not done before”.[175]

2 Methods

This study received ethics approval from The University of Newcastle (H-2008-0071).

2.1 Grounded Theory

The interview data were analysed using grounded theory methodology which follows a systematic approach to the collection and analysis of qualitative data.[176] The grounded theory methods are used to develop an interpretive structure of ideas and relationships.
to explain the “who, what, when, where, why, how and with what consequences.” As Strauss and Corbin (1990) define it;

“A grounded theory is one that is inductively derived from the study of the phenomenon it represents. That is, it is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon.”

While some grounded theory researchers emphasise conclusions being inductively drawn from the data, it does not exclude developing explanations based on a theoretical position. “Theory building occurs in an ongoing dialogue between pre-existing theory and new insights generated as a consequence of empirical observation.” In this study, the theoretical concern lies in pharmaceuticalisation, the “transformation of human conditions, capabilities and capacities into opportunities for pharmaceutical intervention” (see below).

2.2 Analysis

The analysis of the data involved a process of conceptual categorisation and qualitative data analysis techniques as applied by ‘grounded theory’ advocates. The analysis follows an interpretive and iterative process of identifying and grouping (‘coding’) concepts which constitute the interviewees’ descriptions and explanations of disease mongering and associated phenomena. A conceptual categorisation then evolves through extensive ‘memo-ing’ (reflecting on and writing about) the descriptions and explanations of interviewees. These are then translated (or re-contextualised) into more general sociological categories of varying levels of abstraction in this study – ‘pharmaceuticalisation’. The main aim of the analysis is to develop themes - defined
here as axes of common meaning, evident in interviewees’ descriptions and explanations of drug promotion and disease mongering.

2.3 Units of analysis

The units of analysis are the concepts (words grouped together that represent ideas, objects, events or actions\(^{[54]}\)) that appear in the data and relate to informants’ views around disease mongering. This involved interpreting what concept (“abstract representation of an event, object or action/interaction” identified as being significant in the data\(^{[176]}\)) a segment of talk represented, and assigning a meaningful code to that concept. As the analysis progressed, the focus shifted from identifying and codifying the concepts, to investigating how they interact with each other.\(^{[176, 180]}\)

2.4 Coding methods

Code development was undertaken by two researchers (the author and author’s supervisor) independently and compared for consistency. The coding scheme was applied by the two coders to the same three interviews and then compared to ensure that the scheme was being applied consistently and reliably. The remaining interviews were coded by a single coder (the author).

This was an iterative process and coded segments of text were compared for similarities and differences as well as for the identification of variations in the patterns found in the data.\(^{[54, 176]}\)
2.4.1 Axial coding

The process of initial coding makes it possible to fragment the data into discrete chunks. Axial coding is a strategy for “bringing data back together again in a coherent whole”\cite{176} by relating categories/concepts to subcategories/concepts.\cite{181} In this way, axial coding stipulates the framework of a category.\cite{181}

The codes were then categorised (concepts that stand for phenomena) along the axial organising scheme developed by Strauss and Corbin\cite{176} as follows:

**Action/Interaction** – What occurs in the production of disease mongering including actions/interactions by industry, doctors, the media and the general public?

**Consequences** – What are the consequences of the various machinations and how do the various players perceive them?

**Conditions** – What conditions (macro and micro) shape the production of disease mongering, the consequences of its production and how it is perceived?

The coding frame is provided in Appendix 1.

Categories and concepts were interrogated to establish relationships, as well as to investigate how the concepts and categories act in different contexts, spaces or dimensions.\cite{176} This process included the development of a situational map.
2.5 Credibility

When assessing or evaluating qualitative analysis, the terms ‘validity’ and ‘reliability’ are not necessarily appropriate as they “carry with them too many quantitative implications.” Therefore, the term credibility is adopted here to describe the rigour of the grounded theory analytic process.

>Credibility indicates that findings are trustworthy and believable in that they reflect participants’, researchers’, and readers’ experiences with a phenomenon but at the same time the explanation is only one of many ‘plausible’ interpretations possible from data.

A list of criteria to evaluate the quality, or credibility of grounded theory research findings has been developed by Corbin and Strauss. Corbin notes that these criteria are guidelines and will not apply in every instance, however, these criteria (fit, applicability, concepts, contextualisation of concepts, logic, depth, variation, creativity, sensitivity and evidence of memos) have been applied to the findings presented in this chapter (where possible) and described below.

2.5.1 Fit

Fit refers to the degree to which the findings resonate with both the participants of the study and the professionals for whom the findings were intended. Member checking or respondent validation has not been undertaken in this study. However, at the conclusion of each interview, the interviewer’s understanding of his or her views was
reflected back to the interviewee for confirmation. Reports for peer-review publication are currently being prepared for public health and policy journals.

2.5.2 Applicability

Applicability refers to the usefulness of the findings. “Do the findings offer new explanations or insights?” As stated previously, the purpose of the interviews was to gain a deeper understanding of the concept of disease mongering than is possible from a review of the literature. The interview data were used to situate the concept of disease mongering among other discourses, for example pharmaceuticalisation. The interview data contributed to the media study and the consumer survey.

2.5.3 Concepts

This criterion indicates that the findings are organised around substantive themes/concepts. The data were iteratively coded, organised around axial categories and then developed into relevant themes, for example three of the main themes of the interview data were the potency of the pharmaceutical industry drug promotion, the hubris of many doctors in their self-perceived capacity to not be influenced by drug promotion and the susceptibility of consumers to drug promotion.

2.5.4 Contextualisation of concepts

This criterion relates to the data being presented within a context so that the reader can understand the wider picture within which the results are placed. The themes and concepts identified, e.g. consumerism and medicalisation are shown to be connected to other elements relevant to medicine related behaviours such as susceptibility.
2.5.5 **Logic**

According to this criterion, there needs to be a logical flow to the ideas presented. The data were organised and analysed systematically and presented in a way that invites the reader to follow the path described by the informants as to how disease mongering is produced and with what consequences.

2.5.6 **Depth**

Depth of substance is required to “lift the findings out of the realm of the ordinary.”\(^{[183]}\) The results in this chapter are presented with substantial descriptive detail to provide support for the themes that were developed from the data.

2.5.7 **Variation**

This criterion asks “has variation been built into the results”. There was some variation in opinion among the informants regarding many of their opinions. These variations are described in the results.

2.5.8 **Creativity**

The eighth criterion of creativity asks “are the findings presented in a creative and innovative manner”?\(^{[183]}\) By moving beyond asking informants for accounts of bad practice by industry, new ways of looking at the social, cultural and contextual meanings associated with disease mongering were elicited. These findings are presented in a way to invite further thought and research; to look beyond the conventional wisdom associated with the topic.
2.5.9 Sensitivity

This criterion requires that the data should be produced and analysed without bias. The data have been extensively revisited during analysis by two analysts acting independently to ensure that the results are presented in a way that is true to the informants’ stated opinions.

2.5.10 Evidence of memos

To meet this criterion there should be some discussion of memos in the findings. The themes developed from the data resulted from extensive and iterative memo-ing.

2.6 Sampling

A list of potential participants was drafted using existing published literature and current contacts and networks. The participants were health professionals, academics and consumer advocates (many all three) with a demonstrated interest in pharmaceutical promotion (e.g., have published or presented or publicly commented on the topic).

As the focus of the report is on the content of their accounts, not their identities, the informants are reported anonymously following standard practice for reporting qualitative research.

The number of interviewees was determined by reaching ‘theoretical saturation’ (“A category is considered saturated when no new information seems to emerge during
coding, that is, when no new properties, dimensions, conditions, actions/interactions, or consequences are seen in the data”.[177]

Theoretical sampling (sampling on the basis of the concepts that emerge during data collection)[175] was also employed. As categories emerged in the data, informants from the original sample were asked if they could recommend someone to interview who could meaningfully add to the discussion and thereby “illuminate and define the boundaries and relevance of the categories.”[181] Three informants were interviewed who had been ‘theoretically sampled’.

2.7 Interview process

Fifteen of the eighteen interviews were conducted by the author; three interviews were conducted by the author’s supervisor (for training purposes). Potential participants were contacted via email, provided with an outline of the study and invited to participate. Once the participant had returned a signed consent form, the time for the interview was arranged. The consent form indicated that the participant’s personal information would remain confidential to the researchers.

Each interview was guided by a schedule of topics identified in the literature as being relevant to the definition, production or consequences of disease mongering (see Appendix 2). However, the schedule was somewhat tailored to each participant; their professional experience, position and published work on disease mongering. This informed how some of the questions were phrased, and the order in which they appeared. Further, the content and structure of the schedule developed as the study progressed and concepts emerged from analysis. This schedule allowed the
interviewer to be free to concentrate on the interaction during the interview while ensuring that all the relevant issues were discussed. As relevant topics and questions were broached by either the interviewer or the participant, probing questions were asked to elicit further detail and clarification. At the conclusion of each interview, the interviewer’s understanding of his or her views was reflected back to the interviewee to produce a rudimentary check on validity. Interviewees were encouraged to advise if anything had been misunderstood, misinterpreted or overlooked.

2.8 Recording and transcriptions

All interviews were digitally recorded with the permission of the participants. Each interview was transcribed verbatim as soon as possible after the interview. The accuracy of the transcribing was assessed by listening to the digital recordings and comparing with the transcription. Each transcription was ‘cleaned’ of extraneous text not relevant to analysis (e.g., um’s and ah’s and hello’s/goodbyes were excluded). Each ‘cleaned’ transcript was sent back to interviewees who then had the opportunity to identify any misrepresentation or error in the transcription, or to add any salient information/opinion they wanted to include in the analysis. The interview transcripts were managed using NVivo qualitative software.

2.9 Study participants

Eighteen individuals were interviewed over the telephone or via Skype because of the geographical disparity of the participants. The location of each interviewee is provided in Table 4 below.
Table 4: Country of origin

<table>
<thead>
<tr>
<th>Informant #</th>
<th>Country</th>
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<td>Canada</td>
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<tr>
<td>Informant # 18</td>
<td>New Zealand</td>
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3 Results

3.1 Overview of the results

The results detail some of the common descriptive features of the accounts – how disease mongering is defined, how interviewees characterised each of the major actors and contemporary political, economic and cultural circumstances.

“There (will always be) death and suffering and there will always be people offering to alleviate it. Some of it will be good some of it will be nonsense but most of it will be lucrative.” Interviewee 15

For all of the interviewees ‘disease mongering’ is an increasingly prominent element of the ‘nonsense’ frequently involved in selling remedies. The interviewees felt that almost any ‘ill defined’ but measurable physical or mental state can present opportunity for a drug manufacturer to start “pushing the boundaries of a diagnosis” (Interviewee 4) or for ‘creating diseases or magnifying the importance of diseases” (Interviewee 17). Depression, anxiety, shyness, attention deficit disorder, irritable bowel syndrome, restless legs, osteoporosis, erectile dysfunction, premature ejaculation, female sexual dysfunction, hypertension, pre-menstrual syndrome, high cholesterol, menopause, insomnia, pre-hypertension, pre-diabetes, over-active bladder, baldness – were all cited as examples of physical and mental states that had been subjected to ‘nonsense’ and mongered.
While not denying the suffering that these conditions may entail, all felt that such

“…broad spectrum conditions, ill defined and easily confused with day-to-day trials and tribulations of life” (Interviewee 11) are ripe for mongering.

“(the) things that will get mongered…are things that can be measured and where it can be put to us that our measurements are falling outside some norm, great pressure can be put on us to try and get ourselves back inside the norm.”
(Interviewee 6)

Almost anything is measurable on some scale or another. Once measured, what is ‘normal’ can be defined, and what is otherwise, and should concern you, can be communicated.

“What I see every single day is the widening of the definitions of raised blood pressure, the cholesterol obsession, bone density obsession, all things that might harm you in the future but you’re perfectly well now but you’re obsessing about these things…People spoil the health they have by worrying about (it)…”
(Interviewee 7)

Disease mongering may involve nonsense but it is pernicious nonsense. The elasticity of ‘normal’ allows for the pathologising of natural human variation. Interviewees were all concerned that essentially healthy bodies and minds are turned into problems - creating dissatisfaction, worry and unhappiness.

“(Disease mongering)...is a little bit like the war on terror where you keep the population worried the whole time…you profoundly change the meaning of human experience…the natural and spontaneous ways that we go about our lives are being dissembled by the pharmaceutical industry and all the different
people who can make money out of making us unhappy with bits of our functioning.” Interviewee 6

For all interviewees, what disease mongering is most pointedly criticising is that the sowing of discontent with our minds and bodies is deliberately undertaken to ‘mislead’ people towards treatments. What was particularly troubling for interviewees was that misleading people towards treatments needlessly exposes them to potentially harmful medicines of uncertain or dubious benefit.

“Misleading people to the effect that people who were content with their lives are now unhappy about themselves and motivated to take treatments that will do them more harm than good.” Interviewee 10

“…of the potential to convince healthy people that they are sick and that they need daily drug treatment…when the likelihood of benefit is very low.” Interviewee 12

Another issue of major concern for interviewees was that disease mongering deflects attention and effort from illness prevention in favour of expensive treatments and diverts resources from more serious health issues to less serious, even trivial, matters.

[We are] “more focused on treatments rather than on health promotion, education and prevention, which should be the case.” Interviewee 17

“I think there are opportunity costs at a societal level, it is the focus of time and money and clinical gaze upon diseases that are mongered then there is a risk that things that are really causing greater suffering are ignored… If we waste money on medicines and treatments that are not truly relieving suffering, then that there are less resources available for other things that are…” Interviewee 9
The informants provided varied descriptions of disease mongering as a process where identifying an entity as a treatable problem distorts understanding and results in treatments that reach beyond those with the capacity to benefit to those who simply have the capacity to consume.

### 3.2 Disease mongering and medicalisation

For the interviewees, the disease mongering process of problematising body and mind means it involves, or is a 'variant' of, medicalisation.

“...disease mongering...is a very powerful tool to produce medicalisation of everything.” Interviewee 1

“I probably see the two concepts as being extremely closely related and having a very large interlock, you know overlap, between disease mongering and medicalisation.” Interviewee 12

“I think that disease mongering probably fits under the umbrella of medicalisation but it’s a particularly pernicious...cynical...extreme and nasty variant of medicalisation.” Interviewee 13

For most interviewees, to the extent that disease mongering differs from medicalisation, the divergence lies largely in that disease mongering is undertaken to sell products rather than extend the reach of medical authority.

“they’re very similar; they each try and make part of the lifeworld a pathology or something in need of therapy... perhaps medicalisation is broader because you can actually make something a pathology without linking it to therapy, whereas
disease mongering is often attached to...having a therapeutic end.” Interviewee 8

For some interviewees, medicalisation, in contrast to disease mongering, may also result in a positive effect. People have benefited as some conditions have come under the medical gaze.

“In the past twenty years the medicalisation of chronic pain has been a good thing, basically for patients and probably doctors as well. The pain medicine…it’s a case of medicalisation, but I would be very hard bent to call it disease mongering”. Interviewee 5

“The medicalisation of epilepsy which has occurred over the past hundred years has helped destigmatise it, has helped bring control over 70%-80% of people’s seizures and I would argue that that’s still medicalisation but that’s not necessarily a negative thing.” Interviewee 5

Interviewees characterised ‘disease mongering’ as drug manufacturers promoting the idea of some bodily or mental state as problematic (for being ‘healthy’ or ‘normal’) and treatable when it is possibly neither. The disease mongering process is similar to that of medicalisation - attention is brought to a ‘problem’ and this involves heightening awareness and communicating information about our relationship to risk and how that relationship can be modified. The main difference being that medicalisation isn’t for profit and may result in some good. Interviewees generally suggested the worthlessness of disease mongering (except to the pharmaceutical industry).

“…most of the best selling drugs and medicines don’t treat proper diseases at all… they are drugs which could be kind of sunk to the bottom of the sea and we wouldn’t be any the worse off…” Interviewee 6
“...disease mongering is so much more related...to the perceived profitability of a disorder than to the significance of that actual particular disorder...” 
Interviewee 13

Disease mongering is about “creating a need” (Interviewee 8) and the interviewees argued that pharmaceutical companies are at least as adept at manufacturing need as they are drugs.

3.3 Disease mongering and the pharmaceutical industry

Pharmaceutical companies (or ‘the industry’ or ‘Pharma’) appeared in the interviewees’ accounts as an entirely known quantity - “...it’s an industry...the main goal is to sell” (Interviewee 13) and “…drug companies focus on profit first and foremost” (Interviewee 16) prosaically state the obvious motive. “Drug companies are in the business to make money” (Interviewee 5) and the business of selling drugs is a tough one – a highly competitive environment where the business edge lies in innovation but where it is also “much easier to market than to develop drugs” (Interviewee 9). What motivates industry wasn’t much elaborated on – plainly in the view of the interviewees, the industry is in the business of selling drugs and making money.

“It (disease mongering) happens simply because of market pressures...there is a finite number of sick people out there and pharmaceutical companies are functioning in a very competitive market place and need to establish and expand market share for the products.” Interviewee 12

“I think that competition within the industry really drives the disease mongering...in competitions people quite often get caught up...spending more
and more money on promotion and disease mongering and…because they’re all doing it they all have to keep doing it.” Interviewee 13

Citing factors such as declining productivity of the drug development pipeline, interviewees described marketing as having come to dominate pharmaceutical enterprise – with promotion becoming the area of its greatest creativity.

“At present what you have is a great expansion of marketing innovation…a great effervescence of creative invention. I don’t think that that invention is the kind…that results in better (medicines).” Interviewee 3

“…there are not many new drugs or products coming in, so they have to reinvent the wheel… they have to sell the old medicine with the new name.” Interviewee 17

The focus on marketing and the vast resources devoted to it has seen drug companies develop into highly capable, subtle and sophisticated marketers willing to aggressively use whatever means they believe works.

“(The pharmaceutical industry) is extremely sophisticated… they know a lot more about how to expand the market than we could possibly even guess.” Interviewee 18

“…pharmaceutical companies are not stupid… if it’s not working then they’ll try something else and if it’s working really well then they’ll intensify it.” Interviewee 13

“…the campaign was hugely successful, and the real indirect evidence…was the drug company spent over $1,000,000 a day advertising it, so it must be doing ok…” Interviewee 15
“…companies are spending money. I don’t know if it’s always effective but it
must be getting a good return because if it was not… it would not be pursued.”
Interviewee 16

“…the industry spends much more than us, I mean if we spend some amount
on teaching people to use medicines correctly, the industry would spend 15 or
20 times more…to promote a product.” Interviewee 16

For all the interviewees, marketing inventiveness has increasingly turned to disease
mongering. Bringing attention to, and informing about, a ‘condition’ is often akin to
‘branding’ the condition and, somewhat paradoxically, making it desirable. Changing
perceptions of a disease can’t be achieved with pithy slogans and attractive imagery
alone but relies on assuming the language and authority of medical science.

“(It) is important for (industry) to create a market…that appears to be valid and
you do that by attaching it to scientific authority or medical authority.”
Interviewee 8

For the interviewees, the sophistication of drug companies marketing, is at its most
insidious in the “pseudo-scientific approach” (Interviewee 2) – the veneer of science is
an indispensable and convincing device in persuading people that they need a remedy.

Interviewees portrayed drug companies as potent, capable and determined. Power
following the unambiguous imperative of profit predicated all descriptions of industry
and its actions. For all the interviewees, the potency each associated with industry was
apparent in the matter-of-fact expressions of its sheer size and strength (‘Big Pharma’).
Industry appeared as determined in two senses, first – that drug companies are
resolute in their pursuit of profit and second, that because of ‘market pressures’ they can’t be otherwise: the very nature of industry determines what it does.

“As long as there is a pharmaceutical industry there will never be no disease mongering” Informant 13

All interviewees described drug companies as willing to use whatever means possible to sell drugs, including deceit. The historical record of egregious, self-serving behaviour by drug manufacturers (the Vioxx case, for example) was cited by interviewees as making such a conclusion inescapable. Few interviewees, however, were excessive in their criticism of pharmaceutical manufacturers (for example, only one of eighteen interviewees invoked the ‘snake oil salesman’ stereotype).

In the interviewees’ accounts the unerring profit motive directs industry action in ways that may, but may often not, align with the interests of any given individual medicine user. A pharmaceutical manufacturer’s presentation of its drug product and the associated condition (physical or mental state) will only ever be framed to sell drugs. Selling drugs (prescription medicines at least) requires a particular and convincing frame to appeal to the medical practitioners.

The accounts contained an inventory of strategies and practices - advertising, educating, sponsoring, collaborating, lobbying, - undertaken for “…the swaying of public opinion, the swaying of physician opinion” Interviewee 3.

“You have to work through opinion leaders and experts; you have to actually get them to come to the idea themselves. I think you do that by becoming partners with them and working with them…” Interviewee 18
“...the more subtle persuasion mechanisms are the ones in which there is an attempt to bring everybody on board, to build a consensus over the usefulness of a given drug...the main mechanism by which that takes place is through a common moralizing discourse...“oh you are denying people treatment...””
Interviewee 3

Pharmaceutical marketing methods weren’t always described as subtle, with some interviewees expressing the belief that industry succeeds “By buying their way into professional caba.”. (Interviewee 11) ‘corrupting’ doctors and others in their attempt to control the definitions of what is normal and what isn’t and so signalling what should be treated.

“(Industry)...corrupt doctors, they corrupt politicians and they corrupt the media...” Interviewee 1

3.4 Disease mongering doctors and hubris

Doctors (or ‘medicine’ or ‘the medical profession’) appeared in most interviewee’s accounts as well-meaning but too easily manipulated health professionals. While serving the needs of patients should be, and mostly is, the primary driver in their decisions, the desire for effective therapies and a general lack of scientific competency were cited as making doctors susceptible to the industry’s marketing.

“... they want to have things that they can help their patients with...they don’t want to hear that the drugs really don’t work.” Interviewee 18

“...doctor’s themselves are brought to the point where they are influenced...most regular doctors being basically...poor scientists...”
Interviewee 3
Doctors were described by some interviewees as having been “co-opted’ by drug companies.

“...back in the 50s and 60s (medicine) would be seen as a counter weight to the pharmaceutical industry, it isn't that way now, it has been completely co-opted by the pharmaceutical industry...” Interviewee 6

“I think that as a group physicians and medicine have bought into Pharma…and somehow think they have altruistic goals when their goal was profit and I think a little more honesty about that would help...” Interviewee 9

“Doctors are very naïve for the most part and they go along with it.” Interviewee 17

While doctors were described by some interviewees as being ‘entangled’ and sometimes ‘conflicted’ through a variety of interactions with drug companies, the most consistent criticism was of doctors' overestimation of their capacity to establish the truth and to manage their relationships with industry.

“...There’s not enough honesty...there is insufficient admission of how little we (medical practitioners) know. It’s a world that is full of assertion about ‘if you take this you will reduce your risk’...There is so much we don’t know and we the profession is economical with our lack of knowledge. It kind of implies that we’re on top of it but in these situations we are far from being on top of it.” Interviewee 7

“...it is normal for us to believe that it is only other people who get fooled...that ‘delusion of unique invulnerability’ is the key risk factor for being misled because when people are over-confident they don't avoid exposure.” Interviewee 10
“I think that with advertising...everybody thinks ‘it doesn’t affect me’.

Interviewee 12

The familiar exhortation for consumers to ‘ask their doctor’ for more information about the condition, and of course about the drug, mean doctors are an important element in marketing.

“At the moment Pharma sits like a shadow in the consultation room.”

Interviewee 9

In describing doctors and their role in disease mongering and pharmaceutical marketing more generally, most interviewees focused on their limitations. Doctors appeared as vulnerable to being influenced, less because of avarice or corruption and more because of naiveté and hubris regarding their capacity to avoid being manipulated. Interviewees expressed concern that doctors’ ‘delusion of unique invulnerability’ blinds them to the potential of being misled. The pharmaceutical industry, the ever-present “shadow in the consultation room” isn’t held by the interviewees to be a benign presence but an insidious co-opting force. With its marketing claims presented as scientifically sound, a drug company can subdue a doctors’ more sceptical side and move them to seeing their patient’s every complaint as treatable.

In some accounts doctors were seen sympathetically as caught in the middle between the pharmaceutical industry and the patients they are required to regard simultaneously as consumers.
“…physicians get more caught in the middle of it, they’re pulled by patients and consumers in one way…and pushed by the drug industry in the other, so they are not powerless but they are caught in the middle.” Interviewee 5

“…the privatization of health care, not just pharmaceuticals but privatization of health care in general, has created a situation in which doctors are beholden to patients. Patients are consumers to them and they are out to please their patients…” Interviewee 3

3.5 Disease mongering and consumers/consumerism

“…Consumers are pretty much infinitely suggestible.” Interviewee 11

Consumers (or ‘patients’ or the ‘public’ or simply ‘people’) overwhelmingly appeared in interviewees’ accounts as vulnerable.

“We are very vulnerable to people who say to us, ‘look, we have a way to help minimise the risks you are at.’” Interviewee 6

“We’re easy prey to people implying that we’re at risk, implying we have a sickness.” Interviewee 7

“Medicine offers us the way to control our health, our life expectancy, our futures, the futures of our children. The pharmaceutical industry offers these wonderful therapies, cures, solutions for ills that seem otherwise terrifying.” Interviewee 8

“…in society we want to be without any risk in our lives and these situations use an opportunity to pharma industry to increase their power and money.” Interviewee 1
People are “easy prey” to pharmaceutical marketing because they are preoccupied with, but are generally poor evaluators, of risk, particularly when it comes to their health. Interviewees also felt that consumers are as much prey to their own desires and insecurities and referred to a tendency among people to reach too readily for a medical diagnosis and “to seek actively the pill for every ill” (Interviewee 2) for what in essence are simply life’s common travails.

“I think it [disease mongering] just plays on people’s predisposition to accept that something is a medical problem and needs a medical solution…people seem very receptive to the idea that they are always suffering.” Interviewee 15

“(In) North America you have this whole phenomenon of people who define themselves as having the condition of depression. Rather than defining themselves as having difficulties with situations that they’re dealing with in their lives.” Interviewee 12

Other interviewees identified people’s desire to have their ailments and problems legitimated, therefore avoiding blame for any perceived shortcoming.

“They struggle with issues such as disorganization or forgetfulness or not getting things finished and so forth …and they think that if they have it defined as ADHD then its not really their fault it is this disorder, disease or dysfunction that they have and that maybe they can have that repaired by taking some kind of medication.” Interviewee 5

“…you’re not crazy, you’ve got something real and [it’s] something that we have a drug for”. Interviewee 14

Many interviewees described people as wanting the quick and easy solution rather than altering their lifestyle.
“It’s certainly easier sometimes to take a pill than change the way you are living your life.” Interviewee 4

“(Regarding treatment for childhood ADHD)… the idea that if you just give them a pill they will be a really working child, focus their attention and they’ll do well in school… and you know there’s something about this idea…we want to make it easy, (we’re) looking for a quick solution…” Interviewee 14

Interviewees also identified people’s strong and limitless desire for improvement, to be “better than well”.

“I don’t think people want to take medication just for the sake of medications… they think it’s going to improve their life in some kind of way…we’ve seen it with Prozac. When we see what Peter Kramer calls “people who are looking for drugs to make them feel better than well”. Interviewee 5

“I think human nature will always be looking for something perfect or heavenly and if you have to try and find it within life then it has implications for perfect health.” Interviewee 7

The desire to be better means people want to believe their medicines will work and this can lead them to more readily believe messages about the efficacy of drugs.

“By and large people will be concerned about getting an extra year of life. If they have this even potential promise of reducing their cholesterol which may extend their life if you or I walked into their home and said, “do you realize that the data in this is being misinterpreted by an industry to malevolently increase the sales of their drugs?” I think most people would say “look, yes that’s possibly true, but I’m in for a gamble here and I don’t want to be in a position of regret so therefore this is what I’m going to do.” Interviewee 8
“My sense is that most people have a very exaggerated sense of...what the real value of the medications that we have is, including most doctors.” Interviewee 18

Many interviewees pointed to how being ‘healthy’ is now something we value as a goal unto itself and how our health is increasingly an expression of consumerism.

“Fifty years ago, or one hundred years ago, people sought health but health was just more something to get you going so you could work. Now people look at health and long life as ends in themselves...” Interviewee 5

“...the world we are in now is a world where people say, whoopee, I have ADHD or bi-polar disorder or I’ve got raised lipids or whatever. People are wearing their diseases these days almost like a fashion statement...” Interviewee 6

“I’m looking at a system that is geared toward producing greater consumption of these goods...” Interviewee 3

“What we’ve seen over the last ten years in particular is a re-definition of democracy and the obsession with that ghastly idea of limitless choice.” Interviewee 11

Most interviewees indicated that consumers can be “influenced easily” with industry’s marketing strategies working through “simple” mechanisms such as saturated media exposure.

“...it’s a simple practice [to] convince the public...a number (prevalence estimate) is repeated over and over again...people see it in the press, and they
“start to believe it, it has to be true because it has been repeated so many times.” Interviewee 18

“…when it is constantly played on media and on tv and radio and that sort of thing…that has a psychological impact actually…even if we think that consumers are intelligent enough to make choices… They may not be able to look at what is right and what is wrong, and how to differentiate between them and they could be influenced easily.” Interviewee 17

People aren’t powerless as consumers or patients; however, an ‘empowered’ patient can work industry’s way.

“…people themselves they are deciding about their treatments and… in some cases the consumers can also influence their physicians…to give them sort of drugs that they need.” Interviewee 17

“I mean I do think the fundamental one is fear of illness, a fear of death and a desire for health quality and control and power if you want”. Interview 8

Interviewees’ descriptions of consumers focussed on their vulnerabilities – their anxieties about risk, their need for and trust in medical explanations, their preference for easy and quick solutions, and their desire for perfection. It should be noted that, interviewees didn’t exclude themselves from this vulnerability. Few people would be immune to the dread of being sick or the desire to be better. While far short of portraying people as passive dupes, interviewees did portray people as non-experts consuming treatments in a world preoccupied with risk and ways to reduce it. Dread and desire are the raw nerves of demand – sensitive to stimulus, vulnerable to exploitation. Revealing the potential for vulnerable people (us all) to be exploited, is
what interviewees described as the importance and usefulness of the disease mongering critique.

3.6 Regulation and exposing disease mongering

All of the informants had written critically about disease mongering, or pharmaceutical marketing more generally, to bring to light practices they consider to be at once both familiar and insidious.

“…those that realize and that use this term (disease mongering)…have a responsibility to talk about it and to raise awareness in the wider public…” Interviewee 2

“Raising people’s awareness about (disease mongering)…if you create scepticism among people, I think they will become more resistant.” Interviewee 4

“I think what the whole thing about raising awareness of the ‘disease mongering’ phenomenon is such a positive contribution, is that it does bring all these issues into a public arena. That has to be the only way. I think it’s working, I think that people do begin to see that the Pharma market here is not a total good, that it’s there for venal reasons as well as benign and virtuous reasons.” Interviewee 7

“I think the raising of awareness of the term disease mongering and the highlighting of examples will help medicine to reflect and recreate itself to a certain extent.” Interviewee 9

“…just the fact that disease mongering is now being discussed in some of the major medical journals has made a huge difference in, say, in my ability to bring
up the term when I am speaking publicly. And for people to recognize what it's about...” Interviewee 12

“..I do think that there is quite a lot that can be done to slow (disease mongering) down, to make it harder…One (method) is simply by talking about it… by naming and shaming basically…” Interviewee 13

“…the public really needs to…hear about (disease mongering) all the time…to counteract it.” Interviewee 18

Most interviewees described exposing the practice as the most effective way of countering it. For some of the interviewees, exposure should be supplemented by strengthening regulation, particularly ensuring that penalties are sufficiently severe.

“I think that controls that will take Pharma out of the (doctor's) consultation... will be helpful.” Interviewee 9

“Very often they are fined very large sums of money but for a big company that’s nothing. I think they should just get their medicine out of the market, they should have the medicine withdrawn.” Interviewee 2

“…the appropriate punishment is some kind of costs, and there can be fines or there can be things like having a government enquiry and calling senior members of the company to spend a lot of time at enquiries so that they don’t have time to make money...” Interviewee 10

Not all agreed that more regulation will necessarily be helpful.

“…most of the concern (about disease mongering) at the moment is actually focused in the wrong place and most of the kind of solutions that people are
going to come up with which is…to regulate the pharmaceutical industry more, is probably going to make the problem worse and not better.” Interviewee 6

Most interviewees identified improving the quality of information to consumers as the most helpful way to 'combat' disease mongering.

“...we should treat disease mongering as a contaminant information in the media as we treat micro-organisms in the water, or as we treat pollutants in the air...(The) health concerns in the nineteenth century (were) to have clean water for the people...the twentieth century...having clean air for the people, and now the priority is to have clean information for the people." Interviewee 1

“I think that one way to really combat disease mongering is for people to have better information about the effectiveness of medicines.” Interviewee 12

“I guess the short answer is to get better information to consumers, and helping the consumers understand that they need to think twice about accepting diagnosis and any treatment." Interviewee 15

Informants also described the need to have transparent public debate and discussion about health in general and what it means. We need to be more realistic about what is possible, some said.

“There is no public rhetoric about what life and health are and can be and what aging is and the limitations of what one can reasonably expect.” Interviewee 7

Not all of the interviewees routinely used the term ‘disease mongering’ with some believing the phrase too contentious. But all saw the value in the phrase having currency, where it serves a ‘muckraking’ (the investigative journalist tradition of
exposing corrupt practices) purpose - raising awareness that the practice exists; bringing a wrong to light. Interviewees also recognised the possible irony in ‘branding’ disease mongering.

“I think (disease mongering) has become a useful brand name in its own right. It has achieved brand phenomenon…It is the kind of thing that you can organize meetings about.” Interviewee 6

Disease mongering is the kind of phrase that gets people to take notice. Interviewees recognised the possible irony in ‘branding’ drug promotion as disease mongering (for this reason some of the interviewees eschewed routinely using the phrase in their work) but its rhetorical force makes the phrase appealing as one means of countering the pervasive messages of drug marketing.

3.6.1 Situational map

Clarke (2003) describes the creation of a situational map acts as an “innovative supplement to the basic social process analysis characteristic of traditional grounded theory.” After the data were coded and categorised, for this research and summaries of each code were produced, a situational map was created. This situational map, aims to “lay out the major human, nonhuman, discursive and other elements in the research situation of concern and provoke analyses of relations among them.”

The main use for creating a situational map is to ‘open up’ the data, to stimulate thinking and allow the analyst to see what concepts are present in the data but also allow an “attempt to articulate what we see as the sites of silence in our data; what
seems present but unarticulated” and are “not necessarily intended to form final analytical products.”[184]

The major work done on the situational map is to conduct a relational analysis among the various elements on the map; to “take each element in turn and think about it in relation to each other element on the map.”[184] In this way, the data can be viewed not only as emergent themes or discourses, but how these interrelate.

A copy of the situational map created for this research to demonstrate this process is provided below.
Many but not all of these elements in the situation are discussed below in relating disease mongering to biomedicalisation and pharmaceuticalisation.
4 Discussion

4.1 General description of the interviews

In abstract terms, interviewees’ descriptions of disease mongering identified a set of practices intended to bring consumer attention to a bodily or mental condition that has been identified as problematic (for being ‘healthy’ or ‘normal’) and that is remediated through the use of a pharmaceutical. Bringing attention to a condition and its remedy involves heightening consumer awareness about the problem, particularly the ‘risk’ it poses and how the consumer’s relationship to risk can be modified by a pharmaceutical product.

The situation as described by most interviewees was populated by pharmaceutical companies; health professionals (mostly doctors, occasionally pharmacists were mentioned); consumers or patients, governments or regulators and the media. For the most part, the interviewees described the interaction of the first three actors. The interviewees tended to emphasise the power and persuasiveness of industry in contrast to emphasising the vulnerabilities of doctors and consumers. Industry also appears as the most active and consciously engaged agent in the situation, with doctors, patients and governments more often described as being acted upon than as acting. The main motive of industry was unambiguously identified – profit; the main motive of doctors – the impulse to diagnose and treat. Most described the motives of patients as some mix of anxiety and dissatisfaction.

Contemporary political economic conditions were mostly characterised as favouring pharmaceutical enterprise. This was predominantly visible in descriptions of
government failure to adequately regulate industry activities to protect consumers. Descriptions of cultural circumstances mostly referred to medicalisation, the preoccupation with 'risk' and prevalent 'consumerism'.

Interviewees identified a range of physical and mental conditions (already described in the Introduction chapter) that had been subject to disease mongering and which consequently had resulted in their being widely misunderstood. For all, the explanation for poor understanding was given in terms of power and susceptibility, primarily the potency of industry and the vulnerabilities of doctors and patients.

Although interviewees often appeared careful not to over-demonise pharmaceutical manufacturers, the danger associated with industry appeared in pointed statements regarding its sheer size and brute determination. Past dubious behaviour by manufacturers animates the concern and suspicion of most, if not all, industry drug promotion. Industry always has an ulterior motive, profit, and this objective need not be in harmony with the interest of any given individual medicine user.

All interviewees saw that bringing attention to a ‘problem’ can be good and bad and that the point at which good becomes bad is often difficult to isolate and predict. However, the validity of the claims about risk and remedies is the fulcrum for balance between good and bad promotion. A pharmaceutical manufacturer’s presentation of itself, its drug product and the associated target (physical or mental state) can only but be framed to its favour; truth of a product and its risks and benefits can get lost in marketing. For disease mongering, what is lost is the truth about a condition - of what is normal or sub-optimal. The interviewees generally agree that pharmaceutical
marketing veers away from the kind of sober and balanced presentation of information that is likely to inform rather than inflame consumer understanding of a condition and the pharmaceutical that is available to treat it.

All the main actors appear in an unflattering light – industry is often venal, but doctors are often over-confident if not arrogant and consumers too often credulous. This is not to suggest that interviewees were apportioning blame for disease mongering equally between the parties – the culpability of industry wasn’t mitigated in acknowledging other contributing factors. In interviewees’ accounts the effectiveness of disease mongering as a marketing device arises not just from the perfidy of industry and the vulnerabilities of doctors and consumers, but from a social cultural milieu dominated by consumerism, and a preoccupation with being ‘better than well’. In ‘unpacking’ the disease mongering critique by looking at the literature and interviewing critics of drug promotion, I discerned three main ideas in the rationale for further restrictions: the potency of drug promotion, the hubris of doctors and the susceptibility of consumers.

These critics main concern is that peoples’ understanding of health and illness is increasingly constructed at the confluence of medicine and commerce. The contention is that too often our bodies, minds and moods are measured, normalised and problematised by an imperative to sell products. Therefore, often our ‘selves’ and our bodies are rendered as sub-optimal and we are left dissatisfied and seeking remedy. Raising awareness of these processes is the objective of the disease mongering critique. Raising awareness of ‘disease mongering’ might bring resistance to the idea that ‘having it all’ (Havidol) is only a medication away.
The interviewees and other critics don’t claim that all promotion is mongering. Not every doctor is blinded by hubris nor every consumer always vulnerable, not everything industry does is egregious, advertising occasionally fails and not all pharmaceutical promotion involves disease mongering. Many critics also acknowledge that much of what will be labelled as disease mongering will be labelled differently by a drug company; there are “discordant views of the same activity”.[114] However what interviewees were pointing to was less about the specifics of a particular case and more about the constant conditions of human existence - we dread illness and death and we all want to be better; and the particular historical context - a medicalised world of big science, big medicine and the commodification of everything. The resonance and cogency of the Havidol parody and disease mongering do not lie in correctly labelling a particular drug promotional campaign, but in capturing some more-or-less universal ideas about people and their social context.

4.2 The consumer

Interviewees’ descriptions and explanations of consumer behaviour did restate the major issues and themes of the disease mongering literature. There is a sense that in contemporary society we are inundated with marketing for any and all consumer goods, creating and targeting our desire for more and more.[185] In essence, this involves focussing our attention on what we lack, rather than what we have; “the richer we get, the more we want”. [102] We have been conditioned to address any imperfections with consumption.[102]
We perceive an ‘imperfection’ and reach for a consumer driven solution, a position that pharmaceutical marketers can easily exploit.\[102\] We believe that we are ‘needlessly’ suffering when all we need do is ‘ask our doctor’ and a solution will be at hand for our shyness, our baldness, our hot flushes. The rise of the commodification of health care has led medical treatments to become more like common goods and subject to market forces.\[186\] When we recast our self-perception from passive patient to active consumer we, as Conrad (2005) states, “help shape the scope, and sometimes the demand for, medical treatments for human problems.”\[186\] According to the literature, people are, in many cases happy to be sold a disease: it is a quick fix. This takes the problem out of the personal realm and into the public and provides people with a ready-made ‘solution’.\[114, 132, 186\] Therefore, people are not only buying the drug, they are buying the state of mind that goes with it.\[187\]

While the transformation of patient to consumer can be empowering\[186\] and a moral gain,\[135\] it can also have concrete adverse health effects. Healthy people consider themselves sick, take drugs they don’t need, experience side effects and pay the costs for the medication without any benefit\[91, 100, 126, 129, 139\]. To create a new condition or disease, by extension, new sick people are created who are suffering from it; if you are taking a medicine, you are therefore a patient.\[188\] Iatrogenic harm may also be caused if a physician converts or confirms a patient’s (perhaps unnecessary) fear into a diagnosis.\[189\] While diagnosis may benefit those who are genuinely sick, the creation of ‘patients’ who are not actually sick may create anxiety and side effects from treatment, thereby creating genuine illness outweighing any prospective value.\[113, 129\]

The transformation can also affect peoples’ lives in more subtle ways; people can view themselves as sickly, demoralised, imperfect, or not capable of managing their lives
without pharmacological help.\textsuperscript{[104, 129]} The way they live their lives, their relationships or their self-esteem can consequently be affected.\textsuperscript{[189, 190]} In writing about the mega-marketing of depression in Japan, Watters (2010)\textsuperscript{[191]} describes how there needed to be a fundamental cultural shift in how mental illness was experienced in that country. The pharmaceutical industry was, in part, responsible for this shift in order to increase the profits of SSRIs. This cultural shift has caused people to be “constantly worried over the slightest changes in their health and had consequently become more vulnerable to illness.”\textsuperscript{[191]}

In many cases, disease mongering can cause people to get treatment for a symptom, rather than the cause of their suffering. Being prescribed treatment for excessive shyness (social anxiety disorder, treated with the drug Paxil) may not address the reasons they have difficulty in public situations; e.g., perhaps they were abused as a child \textsuperscript{[192]} Or for a man experiencing sexual difficulties who has lost his job and whose relationship is floundering, finding a new job and/or counselling may be more beneficial than being prescribed Viagra.\textsuperscript{[116]}

In the following sections I locate the interviewees’ descriptions and explanations of the problem of drug promotion and disease mongering into two broader sociological perspectives on pharmaceuticals – biomedicalisation and pharmaceuticalisation.

### 4.3 Disease Mongering, Medicalisation and Biomedicalisation

The accounts of interviewees reflect the concern with what Rose (2007)\textsuperscript{[110]} has labelled ‘politics of life itself’ and what Clarke et al (2003)\textsuperscript{[193]} refer to as ‘biomedicalisation’.
Biomedicalisation is an extension of the more familiar concept of medicalisation to a much broader process that involves medicalising and commodifying not only illnesses but “health itself”.\[193\]

According to Clarke et al (2003), biomedicalisation is a term “for the increasingly complex, multisited, multidirectional processes of medicalisation that today are being both extended and reconstituted through the emergent social forms and practices of a highly and increasingly technoscientific biomedicine.”\[193\] Where medicalisation extends medical jurisdiction over aspects of life where previously there was none, the process of biomedicalisation extends and commodifies this jurisdiction further “over health itself (in addition to illness, disease and injury)”.\[193\]

Clarke et al describe medicalisation as “one of the most potent transformations of the last half of the twentieth century in the West”.\[193\] Medicalisation, while transformative in its own right, is itself now going through a process of further transformation toward biomedicalisation. The authors contend that “biomedicalisation is co-constituted through five central and overlapping processes”.\[193\] These are (1) Economics: The U.S. Biomedical TechnoService Complex Inc. (2) The focus on health, risk and surveillance (3) The Technoscientisation of biomedicine (4) Transformations of information and the production and distribution of knowledges and (5) Transformations of bodies and identities. How the data reflects the processes of biomedicalisation is described below.
4.3.1 *Economics: The U.S. Biomedical TechnoService Complex Inc.*

Clarke et al (2003) describe the term Biomedical Techno Service Complex Inc. saying that it: "emphasises the corporatized and privatised (rather than state funded) research, products and services made possible by technoscientific innovations that further biomedicalisation."[193] The Biomedical Techno Service Complex Inc. is growing along with its power and influence and is able to “capture more markets and arenas of health for profit”.[193] The pharmaceutical industry is part of this behemoth that is shifting the boundaries of what constitutes private corporatized versus public not for profit medicine. The reconstitution (how the provision of medicine and its products are thought of) legitimises industry’s role in the model; they are now part of the structure rather than attempting to accommodate it. According to Clarke et al (2003):

“Not only do such transformations produce new and elaborate mechanisms through which biomedicalisation can occur, but also biomedicalisation, in turn, drives and motivates many of these economic and organisational changes.”[193]

Owing to the shift in funding (public to private), industry has become more enmeshed with academic institutions dependent on their resources, possibly influencing clinical trial outcomes.

Our informants spoke at length about the influence industry has on research and its striving for profits over positive health outcomes.

“It is about a decision that profits need to be made – it is more about money than it is the disease.” Interviewee 9
However, there was also acknowledgement (tacit and otherwise) that industry is just doing what it has to within the framework of corporatised capital.

“I think one of the things about the pharmaceutical industry in general is that they are behaving appropriately for who they are.” Interviewee 9

The wider economic structure within which industry is plying its trade is expanding in size, power (economic and social), and resources allowing and legitimising its endeavours to generate profits.

“I think the market model of health has helped to facilitate the process.” Interviewee 9

4.3.2 The focus on health, risk and surveillance

The ‘extension of medical jurisdiction’ over health itself, rather than disease state is shifting the responsibility to be healthy to the individual. According to Clarke et al (2003):

“Health itself and the proper management of chronic illnesses are becoming individual moral responsibilities to be fulfilled through improved access to knowledge, self-surveillance, prevention, risk assessment, the treatment of risk and the consumption of appropriate self-help/biomedical goods and services.”[193]

The development of more intricate, sophisticated and technological innovations is intensifying medicalisation. Again according to Clarke and colleagues: “With the institutionalisation of the assumption that everyone is potentially ill the health research
task becomes an increasingly refined elaboration of risk factors that may lead to future illnesses.” Ever increasing diagnostic and treatment options are extending power over more aspects of our bodies. It is no longer sufficient to manage illness: we must be ever vigilant to the possibility, or risk, of illness. This is mirrored in our accounts by informants who describe how the more we are able to measure disease and risk factors, the more of us will be labelled as somehow abnormal.

“...once you use the technique to measure things,... you will see things in a particular way that will increase the likelihood that either the patient never thought of actually doing this or the doctor [is expected to provide] treatment to bring them back inside norms and reduce the risks that they're at.” Interviewee 6

“We are actually going to take up so many risk factors that there isn't going to be any of us who isn't going to be at risk and who isn't going to be a little bit worried because we are at risk.” Interviewee 6

Therefore, we are simultaneously entreated to actively undertake measures to be as healthy as we can be while being watched and measured in such a way that it is impossible for us to be anything but imperfect in some way. This has the potential to paralyze our ability to enjoy the health we have.

“The widening of the definitions of raised blood pressure, the cholesterol obsession, bone density obsession, all things that might harm you in the future but you're perfectly well now but you're obsessing about these things, and you're messing up the health that you have.” Interviewee 7
4.3.3 The Technoscientisation of biomedicine

The information gathered from the interviewees did not feature many of the details described in this key process of biomedicalisation with the exception of the sub-process of molecularisation and geneticisation of biomedicine and drug design.

With the rise of more sophisticated discoveries at molecular/DNA level, drugs can be developed that target the potential of disease development in specific groups. Further, resources can be directed to the development of drugs to suit conditions that will generate the most revenue for the manufacturer.[193] Treatment and drugs can be developed “that can be targeted precisely at diseases and/or conditions likely to generate high profits (e.g., baldness, obesity).”[193]

Some informants raised the prospect of ever increasing ability to manufacture drugs to address risk factors/conditions that previously would not have been detected and would have had no untoward effects.

“Ultimately things like human genome project and brain scans and things like this are going to add to the problem and not solve them.” Interviewee 6

“The whole pharmaceutical marketplace is shifting to a more sort of personalized medicine approach where you have more genetic testing and then more of a link of drug treatments to people’s specific genetic profile.” Interviewee 12

“That’s an area that might and is probably likely, in some ways, to expand the advertising and promotion on genetic testing to the broader populations who are probably unlikely to benefit from it.” Interviewee 12
4.3.4 Transformations of information and the production and distribution of knowledges

The way health and medical knowledge is constituted, accessed and disseminated has profoundly expanded and shifted over time. It is no longer the domain of a privileged few, rather it is an interactive and iterative process alive with opportunities to inform, empower, mislead and co-opt individuals and organisations in dynamic ways. Consumers can (and in many cases are encouraged to) research their own health and potential for disease enabling them to approach their doctor in an ‘informed’ way. However, in many cases this information is misleading and may be meant to serve interests other than the patients.

“In the biomedicalisation era, while knowledge sources proliferate and access is streamlined in ways purportedly in the interests of democratising knowledge, the interests of corporate biomedicine dominate.”[193]

Many of the methods to co-opt health information (including DTCA, patient/consumer groups funded by industry, influencing the development of disease guidelines, etc.) described by Clarke et al[193] were repeatedly alluded to by our informants as some of the tactics used by industry to sell more drugs.

“They would be doing a lot of things, they would be creating a literature base and getting ghost written articles published, there would be a lot of stuff coming out… they would be getting press releases, it would be in all the newspapers, all in that five to ten year period before it[a new drug] comes onto the market.”

Interviewee 17

“They go and request Paxil from their physicians because they heard it on the radio or television or they’ve seen an ad in a magazine.” Interviewee 5
“For say a television advertisement campaign for a prescription drug, their beaming goes out at an undifferentiated general population audience” Interviewee 12

“Scientific data has been manipulated or falsely recorded in some other way disguised from the kind of truth...(other than) that we as consumers would like to have about them which then doesn’t give us the power of decision making that we believe that we have” Interviewee 3

“So what we see is a proliferation of these campaigns that in theory are not advertising campaigns, that are even put forward as public awareness campaigns or disease awareness campaigns, but in fact they are sponsored by a given company that have the product to sell.” Interviewee 2

4.3.5 Transformations of bodies and identities

Biomedicalisation provides the space for our bodies, both corporeal and philosophical, to be transformed. For Clarke et al (2003); “Transformation of ones one’s body, selves, health….Thereby new selves and identities (mother, father, walker, hearer, beautiful, sexually potent person) become possible.”[193]

Biomedicalisation allows us to have our identities shaped and ‘improved’, even customized, according to what is normal and acceptably different. How the body is perceived has shifted over time, from concern being directed to the ‘ill body’, to the management of chronic diseases and finally to the focus on biomedicalisation. “In biomedicalisation, the focus shifts to behavioural and lifestyle modifications (e.g.,
exercise, smoking, eating habits, etc.) literally promoted by the government among others.¹⁹³

Integral to this process is the pursuit to treat ‘lifestyle’ issues or conditions that may have previously been thought of as the normal variation of life. The pharmaceutical industry both affects and is affected by this process. These lifestyle conditions are contrary to the notion of our newly constituted ‘healthy’ selves and our drive to eradicate them relies on the “discourse that promotes being ‘proactive’ and ‘taking charge of one’s health’.¹⁹³

There were many examples in our accounts where informants talked about the rise of lifestyle conditions and industry’s exploitation of them to sell associated treatments.

“Another angle which I think is indeed a premeditation angle of approaching lifestyle conditions through lifestyle medicines that can appeal to a wider audience.” Interviewee 2

One respondent described “The very successful way that menopause has been redefined as though it’s a medical condition rather than a life stage, and the idea that hot flushes are necessarily something that need to be treated with hormones.” Interviewee 12

“For those diseases where there are more lifestyle and products and services we can see the real evidence of disease mongering.” Interviewee 18

The era of ‘biomedicalisation’ emerges from a political economic and cultural environment characterised by a fusion of public and private interests, heightened
sensitivity to risk and health, continuous advances in medical and information science and technologies and increased potential to transform bodies and identities (Clarke et al 2003, 162-194). In a biomedicalised world, the management of not only illness but of ‘health’ too rests with the individual, a responsibility loaded with a moral imperative to be ever better.

4.4 Health as a moral imperative

The patient has also been transformed, becoming the consumer, with an imperative to take all steps available to be as healthy as possible, for society as well as themselves.[194]

This has also been an aim of public health efforts as a form of social control. There has been a shift of focus of medical attention so that the new social diseases of the twentieth century are seen to happen to “‘normal’ people who were nevertheless ‘at risk’.”[195] Further, according to Lupton (2003)

“At the turn of the twenty-first century, the concerns of public health have remained firmly fixed on controlling bodies, but have moved from containing infectious disease to exhorting people to take responsibility for maintaining personal bodily health. Contemporary public health directed at ‘health promotion’ narrows its focus on the individual by associating the so-called lifestyle diseases with individual behaviours.”[194]

We are entreated, particularly in the various forms of mass media, to ‘look after ourselves’; to strive to maintain the best health we can and responsibility for this is vested in the individual rather than the government.[196] According to Lupton (2003),
“Self-control and self-discipline over the body, both within and without the workplace, have become the new work ethic.”[194] In this context, any and all efforts made to achieve individual health are to be lauded, and initiatives aimed to inspire people to understand their risks and adjust their behaviour accordingly are seen as helpful and benign.[194] For consumers, to suffer from any degree of illness leads people to question their sense of self: if you are sick, you must do something about it. No matter how minor the ailment, there needs to be an explanation, a remedy.[194] There is no room for sickness without medical treatment, they have become synonymous.[197]

To sum up, the interviewees’ descriptions and explanations of disease mongering reflect many of the processes of biomedicalisation. To maintain an optimal healthy state an individual has to manage and assess their risks through continuous self-surveillance. Concurrently, the proliferation of more sophisticated biomedical assessment technologies has altered our perception of what it is to be normal and what risks we face. Technoscientific advances in biomedicine have ‘molecularised’ and ‘geneticised’ our bodies, expanding the range of what in our physical selves can be measured and worked on.[193] We are all always notionally ‘at risk’ not just of illness and of not being normal but of not being better than we are. Within a biomedicalised social context, our identities are imagined for us as ever open to techno-scientific transformation[10]; we have both the technological capacity and the moral imperative to strive at least for ‘normal’ if not perfection.

4.5 Disease Mongering and Pharmaceuticalisation

There is contention within medical sociology about the degree to which disease mongering and biomedicalisation can explain the expanding use of medicines in
society. As this study evolved, a more recent sociological concept has emerged in the literature, that of 'pharmaceuticalisation'. According to Abraham (2010), pharmaceuticalisation is defined as “the process by which social, behavioural or bodily conditions are treated or deemed to be in need of treatment, with medical drugs by doctors or patients.”\[198\] The pharmaceuticalisation thesis shares many of the concepts and concerns of medicalisation and biomedicalisation. Both, for example, place medicine and medical science as central to the expansion of what bodily conditions to be regarded as candidates for treatment. A major difference between medicalisation and pharmaceuticalisation according to Abraham (2010), is that pharmaceuticalisation “can grow without expansion of medicalisation, because some drugs are increasingly used to treat an established medical condition involving no transformation of a non-medical problem into a medical one.”\[198\]

Pharmaceuticalisation, like the disease mongering critique, gives the pharmaceutical industry a primary role in the expansion in range and use of pharmaceutical products. Pharmaceuticalisation theorists recognise that drug promotion (including disease mongering) is important in how pharmaceuticals have come to be such a pervasive aspect of health behaviour, but argue that disease mongering does not adequately account for the broader social and political-economic factors at play. Williams et al (2011) contend that:

“While disease mongering thus captures an important range of issues pertinent to the broader concept of pharmaceuticalisation, its analytic value is clearly restricted. Pharmaceuticalisation on the other hand, may or may not involve elements of disease mongering on the part of the pharmaceutical industry, though often this is not the case.”\[179\]
Pharmaceuticalisation theory includes disease mongering and biomedicalisation among a number of key explanatory factors that are “mutually interactive but competing in creating consumer demand for pharmaceuticals”[198]. There are a number of pharmaceuticalisation theorists, and all see pharmaceuticalisation as an occasionally positive, but mostly negative, consumer preference and choice for pharmaceuticals.

Central to Abraham’s (2010) thesis is that the massive expansion in pharmaceutical use in nations such as Australia over the last few decades cannot be explained by an increased identification of health needs or progress in medical science. This ‘biomedical thesis’ is a weak explanatory factor.[198] In criticisms familiar from the disease mongering critique, for Abraham many of the diagnoses are suspect because of having been widened to include mild form of conditions, and many of the drugs marketed as advances are of dubious benefit. Abraham identifies medicalisation, industry drug promotion and marketing, consumerism and the ideology or policy of the regulatory state as more powerful explanations for transforming consumer attitudes towards health and resulting in a focus on medicines as solutions.[198] Pharmaceuticalisation, emerging from “developments regarding the prescription drug sector in the last 15-20 years in Western societies”,[198] is a process of social transformation where; all aspects of the life world are translated into the prospect of treatment by pharmaceutical products.[111, 179]

The pharmaceuticalisation thesis asserts that pharmaceuticals (including over-the-counter products as well as prescription) have become part of our daily lives linking “the economics and politics of pharmaceutical production to the private lives of citizens.”[111] Abraham points to the close relationship that has developed between regulators and drug manufacturers and the ‘deregulatory culture’ that has developed...
leading to an ‘acceleration of drugs to the market’ before they have been adequately proven as either safe or effective.\footnote{198}

According to Abraham, “alongside the growth in pharmaceuticalisation has emerged rising consumerism characterised by greater reflexivity, expertise and activism among patients.”\footnote{96} Within pharmaceuticalisation, there are two distinct types of active consumerism identified in western societies.\footnote{198} These are consumers who are ‘adverse’ to the pharmaceutical industry and those who ‘collaborate’ with it. First there are those who perceive that they have been harmed in some way by industry, and have undertaken battles, legal or otherwise, against them. This type of consumerism can have the effect of reducing pharmaceuticalisation, as it has “raised doubts about the safety of drug products and hence reduced pharmaceutical prescription use.”\footnote{96, 198} Active consumerism is where patient groups collaborate with drug manufacturers. Abraham argues this, the more frequent and effective form of consumer activism, promotes pharmaceuticalisation.\footnote{96} Patient groups organise themselves as lobbyists to confront regulatory bodies in an attempt to fast track drug approval processes or government subsidies for particular drugs.\footnote{96} In many cases these patient organisations have formed collaborations with drug manufacturers and increasingly are being funded by them.\footnote{199} These collaborations have become more prevalent and according to Abraham (2010) “may become a permanent feature of the pharmaceutical landscape.”\footnote{198}

For Abraham (2010), consumers are constructed as ‘experts’ in their own health, knowledgeable and informed, able to evaluate advertising claims about prescription drugs.\footnote{96} This process transforms needy patients to demanding patients. Abraham argues that the construction of patients as ‘experts’ amounts to the “ideological
appropriation of patients’ needs as consumer demands.”[198] This ‘expert patient discourse’ largely serves the interests of drug manufacturers seeking to relax the bans on DTCA imposed by most nations. Abraham is deeply sceptical of the construction of consumers as expert patients with an informed capacity to evaluate claims of a drug’s risks and benefits.

Williams et al (2011) identify the ‘socio-technological’ processes of “the redefinition or reconfiguration of health ‘problems’ as having a pharmaceutical solution; (ii) changing forms of governance; (iii) mediation; (iv) the creation of new techno-social identities and the mobilisation of patient or consumer groups around drugs; (v) the use of drugs for non-medical purposes and the creation of new consumer markets; and, finally, (vi) drug innovation and the colonisation of health futures”.[179] These processes are similar to those described by Abraham (2010).[198]

According to Williams et al (2011) pharmaceuticalisation is ideally value neutral and may be both productive and problematic to society.[179] Pharmaceuticalisation puts the role of industry as central to the expansion of markets and to the way in which the life world, everyday life and ‘health futures’ are being colonised by pharmaceutical solutions.[179] However, Williams and colleagues like Abraham (2010), also give a central role to the regulation and governance of pharmaceuticals, particularly the increasingly close relationship between regulators and manufactures that has resulted in a lowering of regulatory hurdles to allow manufacturers to ‘fast track’ their patented medicines to the market. Like Abraham (2010)[198] Williams and colleagues (2011)[179] also see that medicalisation pushes drug innovation into evermore areas of health; and beyond health into ‘enhancement’ – of cognitive functioning for example and into
peoples ‘health futures’ through the development of pharmacogenomics and pharmacogenetics.

Williams et al (2011) emphasise the contribution of the popular media to pharmaceuticalisation. Mediating the “(re)framing of health problems in the media and popular culture as having a pharmaceutical solution”[179] lends a degree of validity to consumers regarding conditions and pharmaceutical treatments. While the media can tell negative stories about pharmaceuticals, there is a tendency for news reports to be ‘celebratory’ where pharmaceuticals are “treated as magic bullets for a range of day to day life problems.”[179] Williams et al view of ‘mediation’ diverges slightly from the disease mongering critique in which the media are ‘co-opted’, seeing the media less as a catalyst and more as an amplifier of ‘selling sickness’.[179] Although not a “puppet of pharmaceutical interests”[179] the media’s portrayal of pharmaceuticals may ultimately serve those interests by encouraging medicalisation and pharmaceuticalisation. The rise of the internet as a source of health and medicines information is an increasingly important element in this.[179]

Like Abraham, Williams et al (2011)[179] also argue that pharmaceuticalisation involves the choices of the consumers who may regard themselves as ‘experts’ and ‘information rich’. Williams and colleagues point out that the discourse of the ‘expert patient’ is not solely the ‘ideological appropriation’ of consumers by the pharmaceutical industry but is also a feature of government policies encouraging consumers to be engaged in their health and treatment choices.[179] The ‘expert patient’ discourse is nevertheless mobilised by drug manufacturers seeking to challenge the ban on DTCA.
Overall Williams et al (2011) conclude that the different processes of medicalisation, mediation, etc. collectively amount to a ‘colonisation of the life-world’ by pharmaceutical solutions. Consumers are seen as active in this process but while there is some acknowledgement of people’s capacity to be informed and critical consumers, this appears to be considered rather weak. Williams et al caution that our ‘imagination’ is caught by the promise of pharmaceuticals, that consumers invest considerable hope and expectation for pharmaceutical advances and that this pushes towards reaching for medicines more than other avenues to achieve good health.

Another version of the pharmaceuticalisation thesis is offered by Fox and Ward (2008) who identify two major processes: the domestication of pharmaceutical consumption so that it becomes a part of daily routines and ‘life-style’ marketing of drugs, both of which produce a situation where “pharmaceuticals come to be seen by consumers as a ‘magic bullet’ to resolve problems of daily life” (almost identical wording to Williams et al (2011)). Fox and Ward focus on the opportunities that the internet generally, and the advent of outlets such as on-line pharmacies in particular, have created to bring pharmaceuticals directly into peoples’ homes.

Like Abraham (2010) and Williams et al (2011) the authors see the increased development of pharmaceuticals to ‘enhance’ rather than cure (drugs for sexual potency or obesity for example) as leading to “a burgeoning emphasis on lifestyle-related qualities of drugs”. With the easy reach of the internet, consumers can readily access information on the condition and the drugs, and further, can bypass their doctor and obtain these drugs via online suppliers. The internet has transformed people from being passive recipients of medical care to being active consumers, to the point where consumers are now “a key element in the pharmaceutical ‘distribution
chain’, alongside physicians, academic opinion leaders, patient advocacy groups, public health bodies and ethicists”. [111]

Although the various social processes are conceived of slightly differently, pharmaceuticalisation theorists converge on seeing the demand for medicine as created by social forces that include, but are not confined to, the activities of drug manufacturers. Drug promotion and disease mongering occur within a social context where public health authorities encourage people to be aware of their health and actively engaged in minimising risks. There is also a prevalent consumerist ethos that pushes people towards enhancing themselves through the consumption of (putative) drug innovations.

As for the interviewees and the disease mongering literature more generally, recognition of broader social forces beyond drug promotion does not stop pharmaceuticalisation theorists from pointing their finger at drug manufacturers. Although Williams et al (2011) [179] maintain pharmaceuticalisation is a value neutral concept, it is clearly couched in strongly normative terms such as ‘colonisation’ – a concept more generally seen to indicate exploitation of those being colonised, in this case consumers. Drug marketing is a central element in pharmaceuticalisation but it is not the only causative factor.

All of the pharmaceuticalisation theorists challenge the idea of the ‘expert patient’. While consumers are acknowledged to have greater access to information, particularly through using the internet, there is concern this simply incites demand without necessarily increasing sound knowledge and expectations of pharmaceuticals. The
quality of information available to them (much of it produced by or influenced by drug manufacturers) may mean that these demanding consumers may not become as ‘expert’ as they may think. While consumers may be more informed about medicines than in the past, their better knowledge gives them only a weak capacity to act as a countervailing force against the broader processes of pharmaceuticalisation.\[2\] For pharmaceuticalisation theorists, our everyday health related behaviours ‘from the bedroom to the kitchen’ are dominated by pharmaceuticals.\[111]\n
### 5 Limitations

Relatively short, one-off interviews are unlikely to elicit and catch the speaker’s final word on the many aspects of the situation and the analysis does not exhaust interpretive possibility. While interviewees offered similar descriptions and explanations of disease mongering as a social process it is not suggested that they would agree on all relevant aspects of the wider situation. If the analysis emphasises interviewee’s more negative views of the industry, doctors and consumers, it is acknowledged that there was little in the questioning strategy to prompt positive views.

### 6 Conclusion

In this chapter I have shown that disease mongering fits within the broader concept of biomedicalisation which in turn fits within the emerging social scientific theory of pharmaceuticalisation. The interviewees mostly focused on the behaviour and motives of the main (collectively identified) actors – pharmaceutical companies, doctors, consumers, and to a lesser extent governments and the media. All situated these actors in similar political, economic and cultural circumstances and all described, explained and evaluated the capacities, interests and intentions of these actors in
similar terms with some variation regarding the degree of power, influence, and susceptibility attributed to the actors. All interviewees' descriptions and explanations can be situated in the framework pharmaceuticalisation and its processes of medicalisation, pharmaceutical enterprise, marketing, consumerism, biomedicalisation and regulation.

The disease mongering critique involves a criticism of much broader aspects of contemporary life but this does not dissipate the force of its censure of pharmaceutical marketing. For the interviewees, one of the main objections to disease mongering is the restless dissatisfaction with ourselves that it plays on and exacerbates. Pharmaceuticalisation argues that this dissatisfaction emerges from, and reinforces, the more diffuse social processes of biomedicalisation and pharmaceuticalisation. Pharmaceutical marketing practices such as disease mongering (mis)shape understanding about what is normal and healthy but this also results from the focus on individual responsibility for managing health and risk promulgated by public health officials. The troubling net consequence is too much medicine. Opportunities both to the community and to the individual are lost by diverting attention to often less serious conditions while important conditions are neglected. This costs us materially but it also costs us subjectively, we can end up imagining our health futures to be reliant on pharmaceuticals.

Overall, the interview data, the literature on disease mongering and the biomedicalisation and pharmaceuticalisation theses reflect a view of the consumer as susceptible. Drug promotion, medicalisation, consumerism, etc. appear to push the consumer to reach for a pharmaceutical product more readily than take other steps to remedy or improve their health and well-being. Although highly plausible, there has
only been limited research of Australians’ medicine related behaviours conducted with medicine users themselves. Research into the influence of factors such as ‘mediation’ and consumerism on Australians’ medicine related behaviours is also very limited. The research for this thesis explores some aspects of each of these factors. In the next two chapters I present the results of two empirical studies undertaken to explore some of the claims about consumers. In Chapter 3, I describe a media study looking at some of the claims about the role of the media in pharmaceuticalisation. I looked at mediation by assessing the ‘framing’ of a number of conditions in a sample of the popular media. In Chapter 4, I look at consumerism by asking a large sample of Australian medicine users about their behaviours and attitudes towards pharmaceuticals.
Chapter 3: Media Study

Chapter 3: Media Study – Key Points

- The role of the media in informing people about health and illness is central to the regulation of drug promotion.
- The data showed that the media air different framings of conditions including criticism of medicalisation, confirming the observation of pharmaceuticalisation theorists that the media can be both critical and celebratory regarding stories of illnesses and treatments.
- The data only lightly suggested an emphasis on pharmaceutical solutions.
- What was common across the conditions studied was the notion that consumers should take the necessary steps to be healthy.

Chapter outline

The research for the media study looked at how the primary media sources available in the Hunter Valley Region of New South Wales communicate information about health. In particular, the data collected for this study are used to analyse media coverage of three conditions: depression/bipolar disorder, breast cancer and obesity to identify how these are ‘framed’ and to what extent this reflects the assumptions about the media and its role in pharmaceuticalisation.

1 Background

The role of the media in informing people about health and illness is central to the regulation of drug promotion. The media play an important role in disseminating information about health risks, disease and prevention. Public health promotional
campaigns, for example, rely heavily on the media to get their messages to the public. While media communication can clearly be beneficial to public health, it can also be misleading or inaccurate.\textsuperscript{[200, 201]} Simply because it is in the media can give an issue importance or significance, that in many instances isn’t warranted.\textsuperscript{[202, 203]} There are “numerous instances of the media providing inaccurate or misleading information which can result in potentially dangerous misconceptions in the general public”\textsuperscript{[204]}, for example the portrayal of breast cancer screening in Australian media in a way “unlikely to encourage appropriate screening.”\textsuperscript{[204]}

As already discussed, many critics of drug promotion argue that manufacturers are circumventing this ban through de facto promotional devices such as disease awareness advertising (press releases, etc). Disease mongering and pharmaceuticalisation are seen by critics to operate through the media, influencing consumers’ perceptions about conditions and treatments.\textsuperscript{[68, 96, 205, 206]} The media is seen to provide an opportunity for industry to promote conditions and treatments in inaccurate and misleading ways in an effort to increase demand for medicines.\textsuperscript{[206, 207]} Pharmaceutical theory also argues that there is a more general bias in the media to the medicalising of conditions which, in turn, creates a bias towards pharmaceutical treatment.\textsuperscript{[208]}

This study analyses media reports about health conditions and disease which appeared in selected media within the Newcastle/Hunter region of New South Wales for a six month period in 2009. This was an exploratory study undertaken to establish if, for a specific place and time, there is any support to the claims of those critical of disease mongering and pharmaceuticalisation that the media tend to medicalise illness and focus on pharmaceutical treatments. This analysis did not involve scrutinizing the
accuracy of the media reports, or investigate if industry provided media releases or funded the research on which the reports were based. Rather, the analysis focussed on identifying how the media coverage of specific conditions is ‘framed’ (described below) and whether this framing reflects the “pharmaceuticalisation of every day/night life”.[208]

2 Method

We attempted to collect all media items concerning health conditions and treatments published in print or aired on radio or television from the selected sources. A commercial media monitoring organisation ‘Media Monitors’ was hired to conduct the data collection (advertisements were not included in the search as it was not a service offered by Media Monitors). The data were collected over a six month period from June 1 through 30 November 2009 (inclusive). This time period was selected so that the previous data collection phase of the study (in-depth interviews) could be analysed and used to assist in the selection of conditions for further analysis.

2.1 Data sources

The media outlets to be monitored were chosen because of their relatively high listening/viewing audience or circulation numbers, and their accessibility to a wide proportion of the Newcastle/Lower Hunter population. The selected media sources are described in Table 5.
Table 5: Media study - sources

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<thead>
<tr>
<th>Print media</th>
<th>Radio media</th>
<th>Television media</th>
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<tr>
<td>Newcastle Herald (daily, Newcastle and Hunter region)</td>
<td>ABC Radio National (twice weekly, the Health Report and Life Matters, National)</td>
<td>The 7:30 report (daily, National)</td>
</tr>
<tr>
<td>Sydney Morning Herald (daily, Sydney and regional NSW)</td>
<td>Local Newcastle ABC radio (daily, Newcastle)</td>
<td>ABC news (daily, National)</td>
</tr>
<tr>
<td>The Daily Telegraph Newcastle Edition (daily, Newcastle and Hunter region)</td>
<td>NX FM (daily, Newcastle)</td>
<td>NBN news (daily, Newcastle and Hunter Region)</td>
</tr>
<tr>
<td>The Australian (daily, National)</td>
<td>2 GB (daily, greater Sydney)</td>
<td>Channel 7 news (daily, National)</td>
</tr>
<tr>
<td>The Post (weekly, Newcastle)</td>
<td>ABC Sydney Radio (greater Sydney)</td>
<td>A Current Affair (daily, National)</td>
</tr>
<tr>
<td>The Star (weekly, Newcastle)</td>
<td></td>
<td>Today/Tonight (daily, National)</td>
</tr>
<tr>
<td>New Idea (weekly, National)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman’s’ weekly (weekly, National)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2 Types of data

The brief to Media Monitors was to look for:

- Any news or feature item where the focus was on a disease (e.g., cancer), a condition (e.g., osteoporosis, high cholesterol, mental illness) or other factors directly affecting the health of an individual (e.g., obesity).
- Any news or feature item where the focus was on a treatment (for diseases or conditions as described above) this includes: pharmaceuticals, medical devices, surgery, complementary and alternative therapies, behavioural/lifestyle interventions.
2.3 The data collected

Media Monitors provided daily emails containing relevant print stories and a synopsis of relevant broadcast media items. A total of 1,203 items were received over the data collection period and these were sorted into condition or treatment categories. During the data collection period, the first cases of swine flu appeared in Australia, therefore the highest proportion of media items over the time period related to this condition (n=225). A full enumeration of the items collected is provided in Appendix 3.

2.4 Condition selection

The conditions were selected following the Grounded Theory technique of theoretical sampling where “sampling is driven not necessarily (or not only) by attempts to be representative of some social body or population or its heterogeneities but especially and explicitly by theoretical concerns that have emerged in the provisional analysis to date.” Each of the three conditions was ‘theoretically sampled’: (depression/bipolar) because it was identified by our key informants and the literature as a condition with diagnostic uncertainty that has been pharmaceuticalised and subject to disease mongering; breast cancer because it is a condition with relatively clear cut diagnostic criteria and less susceptible to disease mongering but open to pharmaceuticalisation; and obesity because it is a condition loaded with the moral imperative to be responsible for being healthy. Data availability was also a factor in the selection of the conditions; the chosen conditions also required large enough numbers of coded media items to allow for robust analysis and we anticipated these conditions would appear in some numbers during the period of data collection. The size of our sample of media items collected for these selected conditions is comparable to similar studies that have been
Analysis of these three conditions focussed on identifying variations in how treatments were portrayed and to what degree personal responsibility for being healthy or sick has been emphasised in the media coverage, as well as the emphasis placed on pharmaceuticals.

2.5 Data management

The media data was entered into NVivo 8 and then sorted into categories according to disease/condition or treatment prior to analysis.

2.6 Process of Analysis

This analysis adopts the analytical framework utilised by Clarke and Gawley (2009), Clarke (2004) and Clarke and Everest (2006). This framework was guided by the principles of Ethnographic content analysis or qualitative document analysis. The aim of these principles “is to be systematic and analytic but not rigid.” This produces analysis that is reflexive and interactive and allows incorporation of previous knowledge (categories and codes) while other themes “emerge throughout the study.” This method has been used elsewhere to analyse how pharmaceuticals, depression, and cancer have been represented in the media and it allows for comparison of how different diseases have been presented.

The analysis was undertaken at two levels – manifest and latent. At the level of manifest content, the article was coded for particular features and to answer specific
questions (outlined in section 2.6.1). After the manifest content was identified, the media items were read again for latent themes. Following Clarke (2004) the “reading for latent themes considered both that which was said and that which was unsaid.”[209] In this way “what is said in a text is always said against the background of what is ‘unsaid’ – what is made explicit is always grounded in what is left implicit.”[213] For example, if an article speaks about the future fat bomb of the growing obesity epidemic, what is implicit is that being overweight is bad.

2.6.1 Manifest content

At the manifest level each article was read and coded on the basis of its intentional, surface content (counting the frequency of identified themes); the “visible, obvious components.”[214] First it compares the major manifest content of each article and the condition it described. This involved coding for:

1. The source of text (newspaper, magazine, television, radio);
2. The type of text (news report, feature story);
3. The specific disease/condition that is the focus of the text;
4. The specific treatment(s) mentioned in the text (if any);
5. The language of the text;
6. The ‘frame’ of text (see below).

2.6.2 Frames of the media

Frames are “very broad thematic emphasis or definitions of a report e.g. treating illegal drug use as a public health issue as opposed to a criminal justice issue.”[211] The frame given to a story in the media primes its readers to see an issue in a particular way.
This provides the lens through which the topic will be discussed, giving it focus, a perimeter or boundary. “Frames focus on what will be discussed, how it will be discussed, and above all, how it will not be discussed.”[211]

According to Clarke and Everest (2006), “three influential frames for the discussion of health and disease are medical, political/economy and life-style.”[210] These frames were adopted for the manifest analysis of the data.

**Medical Frame**
Within the medical frame, health problems are positioned as “biologically based pathologies, originating in the malfunctioning of the genes, cells and organs in the individual body.”[210] The focus within this frame is treatment over prevention and that the malfunctioning bits can be “fixed or replaced”. [210]

**Political/economy Frame**
Within this frame, disease is seen as being caused by forces outside the person afflicted. These include environmental influences and issues related to socio-economic status e.g., unemployment, insecure housing and poverty.[210, 215]

**Lifestyle Frame**
From within this frame disease is seen to be caused, to one degree or another by the lifestyle choices of the person afflicted, e.g. overeating, lack of exercise, smoking excessive alcohol consumption, etc.[210]

Following Clarke and Gawley, 2009[6] the analysis involved applying the following questions to each article:

1. How are the causes of the conditions presented?
2. How are the risks of getting the conditions presented?

3. How are diagnostic criteria presented?

4. How are associated treatments presented (if any)?

5. How are people who are afflicted with the conditions presented?

2.6.3 Latent analysis

Latent analysis involves comparing texts, interpreting underlying meanings and deriving themes.[214] “Themes are recurring patterns of general meaning e.g. underdog theme.”[211] that are evident across a number of accounts and reports. The media items were initially categorised as per the predefined questions described above. The data in these categories were then coded for interpretive concepts “words that stand for ideas contained in data”[183] and properties or “characteristics that define and describe concepts.”[183] In this way, what is unsaid and implicit can emerge.

2.7 Credibility, transferability, dependability and confirmability

With analysis of this type, the measurement issues of “validity and reliability are replaced with credibility, transferability, dependability and confirmability.”[210]

Credibility requires that the description of what is being investigated is accurate.[216] This is evident in this analysis in the multiple examples given for each theme presented. There are “strong logical links between the gathered data and the argument and analysis.”[183]
Transferability refers to the ability to generalise the findings to other settings. This is evident in the analysis through the relevance of the media quotes which have been used to illustrate the themes discussed.

Dependability requires that the data are stable over time and conditions. This can be seen in the often parallel themes (albeit presented with different emphasis), that have been presented for the different conditions. Further, these themes have been stable over the six month data collection period.

Confirmability requires that the analysis of the data is objective. This has been demonstrated in the direct quotes from media items used to highlight the rationale for the themes presented in this chapter. Further, confirmability would be possible by reading the media items used as data for this chapter.

3 Results

Of the over 1,200 items sorted, three conditions comprising 153 items were selected for detailed analysis. These conditions were depression/bipolar (n=37), breast cancer (n=54) and obesity (n=62).

3.1 Presentation of results

In this analysis, quotes from the articles are presented to illustrate the both the manifest content and latent themes that are discussed. The quotations included in the results are not exhaustive of all possible examples; they were selected because they
concisely demonstrated the content or theme being discussed. Therefore, in some cases quotations from the same item were used in several instances to illustrate a point because it was relevant and succinct. Any word or words italicised are words taken directly from the data.

The presentation of the results follows the same framework for the three selected conditions. Firstly, the manifest content apparent in the media as discussed in section 2.6.1 of this chapter is presented; followed by an analysis of the portrayal of the conditions as they directly relate to the questions posed. Latent themes are identified and discussed in the summary discussion for each condition.

In some cases, latent themes are also evident in manifest content. For example, if one treatment dominates in the selected media and it is predominantly presented in a positive light, implicitly it is portrayed as the best course of action for that condition. In the case of obesity the cause for obesity might be presented as someone who ingests more calories than required. What may be implicit is that the person eats too much, or is greedy; moralistic overtones that might be evident in the tenor, tone or language used in the item.

3.2 Depression/bipolar

The results that follow describe how depression/bipolar are portrayed in the media.
3.2.1 Manifest content

Table 6 shows that the items collected mainly came from news stories and editorials in newspapers.

**Table 6: Source and type of text (depression/bipolar)**

<table>
<thead>
<tr>
<th>Source of the text</th>
<th>Type of text</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper</td>
<td>News story</td>
<td>n=29</td>
</tr>
<tr>
<td></td>
<td>Editorial</td>
<td>n=18</td>
</tr>
<tr>
<td>Radio</td>
<td>Editorial</td>
<td>n=11</td>
</tr>
<tr>
<td></td>
<td>Interview</td>
<td>n=7</td>
</tr>
</tbody>
</table>

The medical frame dominates in the media stories of depression and bipolar, followed by the political-economy frame, while very few media items are presented in the lifestyle frame (see Figure 3). Within the medical frame, depression is portrayed as a biomedical condition of brain function and in many instances a genetic cause or predisposition based on heredity is discussed. Where depression is framed in a political-economy context, depression is seen to be brought on by circumstances beyond the sufferers' control; drought, economic recession, seasonal influences or other illnesses.

![Figure 3: Frame of the texts (depression/bipolar)](image-url)
As shown in Table 7 when treatments were mentioned in the items (n=30), pharmaceutical drugs dominate, followed by therapy or counselling (in some instances, both of these treatments were mentioned in the same item). Drugs (mainly antidepressants), were presented in a predominantly positive light; providing benefit to sufferers. Treatments coded as ‘other’ include non-specific treatment such as people should seek treatment.

Table 7: Treatments and drug depiction (depression/bipolar)

<table>
<thead>
<tr>
<th>Depression - Treatments mentioned (n=30)</th>
<th>Drug depiction (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pharmaceutical drugs 53% (n=16)</td>
<td>Positive 63% (n=10)</td>
</tr>
<tr>
<td>Therapy/counselling 30% (n=9)</td>
<td>Negative 13% (n=2)</td>
</tr>
<tr>
<td>Other 17% (n=5)</td>
<td>Neutral 31% (n=4)</td>
</tr>
</tbody>
</table>

The language used in the items mostly connotes the presentation of people with depression as being afflicted with a medical condition beyond their control. The stories suggest that ‘bravery’ is exhibited by those who ‘struggle’ with the ‘stigma’ of depression and that ‘tragedy’ is implicated for those who ‘suffer’ with the ‘black dog’. Celebrities such as high profile television and sport personalities as well as politicians were also featured in some of the items, all in the context of coming forward to reduce the stigma of depression and imply that it is brave to do so.

Some of the headlines for the print items reflect the dominant medical frame such as Study will try to follow genetic trail of bipolar disorder, Study on bipolar link, Brain breakthrough and Depression factor. Other headlines use the imagery of depression/bipolar being dark and tumultuous while medical diagnosis or treatment is discussed in the stories as a return to light; Dark cloud at school, Researcher aims to lighten the darkest hours, Grey skies turn us blue and Dark clouds on a clear day.
While the bold headlines below highlight a dark and stormy weather metaphor, the medical frame is clearly embedded in the subhead *mental illness tormenting our youngest students*. In the story headlined *Dark clouds on a clear day* the medical frame is obvious in the placement of the story within the Health and Science section of the Sydney Morning Herald.

The results for how depression/bipolar is presented in the media according to the predefined questions are provided below.

### 3.2.2 Causes of depression/bipolar

A total of 35 per cent (n=13) of the media items mentioned specific potential causes of depression/bipolar. There was some overlap in causal factors, for example those who are biologically susceptible were more likely to slip into depression if other factors were present e.g., relationship breakdown or serious illness.

Of the 13 items, six depicted the cause as primarily biological or genetic in nature: *Types of depression are essentially biological conditions of the brain*. [DPB# 25, Sydney Morning Herald] Also *Mental illnesses are among the most heritable of all disorders*. [DBP #10, Sydney Morning Herald]
The items regarding the heritable nature of the conditions imply that people should be worried they or their children might get it if they have a family history.

*People should share information about diseases with genetic influences [with their family] and depression is the same.* [DBP #13, ABC Sydney radio]

*One in three people with a strong family history of bipolar disorder are reluctant to have children due to the hereditary nature of the illness.* [DBP# 20, Sydney Morning Herald]

*She worries that her children, if she has them, will also suffer from the illness [depression].* [DBP# 3, Sunday Telegraph]

*Bipolar disorder is often inherited, with genetic factors accounting for about 80 per cent of its cause.* [DBP #5, Newcastle Herald]

*We know if you have a relative diagnosed with the disorder you are 14 times more likely to be a sufferer.* [DBP #20, Sydney Morning Herald]

The political-economy frame was apparent in a minority of the reports that discuss causal factors (n=3); there are cases where life experience or the effect of other illnesses is seen to be the cause. In these circumstances, depression is presented in a
more acute, rather than chronic, way, as a reaction to events. In these instances political-economic factors are infused within a medical frame.

*Disorders like emotional distress and depression are caused by living with long-term environmental degradation and drought.* [DBP #31, Sydney Morning Herald]

*New pressures on teenagers today exacerbate the difficulties of adolescence from the internet and mobile phones to premature sexualisation, higher rates of divorce, designer drugs and the downsides of affluence.* [DBP #25, Sydney Morning Herald]

*Depression resulting from cardiovascular disease is a massive population health issue.* [DBP# 28, The Australian]

In a couple of items (n=3), the several causes converge, suggesting that those with a biological predisposition are more likely to react badly to external stresses.

*Certain personality styles from perfectionistic and irritable to anxious worriers predispose some people to develop mood disorders under stress, each with its own ideal treatment.* [DBP #30, Sunday Telegraph]
A third type [of depression] he calls non-melancholic which relates to personality type and external stresses. [DBP #25, Sydney Morning Herald]

The stresses of modern life take a toll on the vulnerable and the genetically susceptible everywhere. [DBP #33, Sydney Morning Herald]

One item presents lifestyle factors as potentially causal to those already biologically predisposed. Bipolar disorder could be linked to increased illicit drug use. [DBP# 12, ABC Sydney Radio]

3.2.3 Risks of getting depression/bipolar

Depression/bipolar is referred to in 35 per cent (n=13) of the stories as being common and in five of these reports, rates are reported as increasing, particularly in children. By implication, the risk of having or getting the conditions are increased if depression/bipolar is common, something that ‘ordinary’ people suffer from and incidence rates are going up.

Depression is one of the most common of all mental health problems, affecting around one in five Australians. [DBP #27, The Australian]

Around one in five Australians suffer from a mental illness, including depression and anxiety. [DBP #30, Sunday Telegraph]
Anxiety and depression are our two most common sets of psychological problems. [DBP #3, Sunday Telegraph]

Ordinary people are seeking help [for depression] in record numbers. [DBP #2, ABC Radio National]

Beyondblue research reveals that a million Australians are living with some type of depression. [DBP# 3, Sunday Telegraph]

Bipolar disorder and autism are on the increase among children. [DBP# 7, 2GB Sydney Radio]

Children as young as five are among a growing number of school students diagnosed. [DBP# 34, Daily Telegraph]

3.2.4 The portrayal of diagnostic criteria

3.2.4.1 Difficulties with diagnosis

There is an acknowledgement in four of the items collected that the line between genuine suffering and not suffering can be tricky. The lack of definitive diagnostic criteria, and the professional status and approach of who does the diagnosing is seen to lead to over, under or inappropriate treatment.
There are concerns that such brain technologies could lead to over medicalising mild conditions. [DBP #32, The Australian]

Some people who didn’t need anti-depressants were receiving them but others who did need them were not. [DBP #30, Sunday Telegraph]

I think we are in more danger as it is where we don’t have particular guidelines [for diagnosis]. [DBP #32, The Australian]

There are great risks of inappropriate treatment because of this simplistic classification system. [DBP #25, Sydney Morning Herald]

Too often treatment for depression has been dependent on the background training of the health professional; a GP gives drugs, a psychologist gives cognitive behaviour therapy, a kaftan clad mystic uses crystal therapy. [DBP #33, Sydney Morning Herald]

Five of the collected items referred to how depression/bipolar were over-diagnosed, while five mentioned that they were under-diagnosed.
3.2.4.2 Over-diagnosis

The stories where over-diagnosis was discussed entirely related to children and adolescents and expressed the concern that childhood behaviour has been medicalised unnecessarily.

Since the 1980’s the manufacture of child related mental health pathologies has turned into a growth industry. Children’s behaviour is constantly portrayed through a psychological label. These days confused and insecure children are likely to be diagnosed as depressed or traumatised. [DBP #36, Weekend Australian]

What children need from adults is not a diagnosis but guidance, inspiration and understanding. It is time we put a stop to the medicalisation of children’s lives. [DBP #36, Weekend Australian]

As Lisa Graham, the Macquarie University Researcher who blew the whistle on this medicalisation of behaviour, says, we now appear to be “diagnosing the mainstream” as disordered. [DBP# 37, The Australian]

The over-diagnosis in young people is presented in these media items as being brought about by parents and the education system. By virtue of diagnosis, a child can be more easily managed and the school can receive additional funding for supporting the student. Further, for parents, diagnosis removes the prospect of blame for their
child’s behaviour and the perception of poor parenting. *If you can’t fix it, name it.* [DBP #19] It also allows for individuals to gain moral sympathy. No longer is the parent constructed as not raising the child properly, instead the parents attract sympathy because they are ‘coping’ with a mentally ill child. This shift occurs with diagnosis.

*It is a system that invites over-diagnosis and ambiguous definitions of disability as desperate teachers try to fit kids into narrow categories for assistance.* [DBP #37, The Australian]

*The over-diagnosis is not due to schools alone. In a society in which many parents look to schools to do the hard work of instilling values and standards in their kids, they are often keen to find a medical diagnosis of bad behaviour.* [DBP #37, The Australian]

*When parents feel confused about their children’s behaviour, a medical diagnosis has the virtue of providing a ready-made explanation of a child’s predicament. A disease explains an individual’s behaviour and it even helps confer a sense of identity.* [DBP #32, The Australian]

### 3.2.4.3 Under-diagnosis

The sentiment that people needlessly suffer due to the fact that they have not been appropriately diagnosed is implied in the five items collected that mention it.
Parents and families think all young people go through tough times and a lot of parents think you should just be able to get over it, that couldn't be further than the truth for depression and anxiety. [DBP# 21, Daily Telegraph]

It is not unusual for people to have had a number of symptoms or a number of episodes before they may get a diagnosis. [DBP# 21, Daily Telegraph]

Five out of six boys with obvious problems get no help because they are written off as badly behaved. [DBP# 34, Daily Telegraph]

3.2.5 The portrayal of treatments

As shown in Table 7 treatments were mentioned in thirty of the media items collected. Drug treatment was most prevalent in these items followed by counselling/therapy.

When drugs were mentioned as treatments, the depictions were predominantly positive, presenting them in a life changing way.

Overall, it's a good thing that people are being prescribed more anti-depressants because there has been a huge under-treatment for so many years, under-recognition, and people whose lives have just been an absolute
misery and, often, their families are finally getting the help they need. [DBP #30, Sunday Telegraph]

The medications are not dangerous, they are not addictive and they help a great majority people. [DBP #17, Newcastle Herald]

She [television presenter Lyndsey Rodrigues] has continued to shine, recently filling in as weather presenter for Nine’s 6pm news, and appearing on the cover of Men’s style magazine. She has managed her illness with anti-depressants and sessions with a psychologist. [DBP #3, Sunday Telegraph]

Now 24, Batshon hasn’t stopped talking about her ‘dark’ days since. Responding to a quiz to name three things she’d take to a desert island, the Gen Y poster girl quipped: ‘ipod, meds, book.’ [DBP #4, Daily Telegraph]

Two items presented drug treatment in a negative way. The items present cautionary tales, what can go wrong when a drug is too readily prescribed.

[Psychiatrist Gordon Parker] recalls a teacher he once saw with a perfectionist personality who had been publically shamed by his headmaster. In distress, the man went to his GP and was prescribed an anti-depressant, which didn’t work. By the time he saw Parker, he had been on 23 different drugs, with two rounds of electroconvulsive therapy. Parker said the prescription he really needed was an apology from the headmaster. [DBP #25, Sydney Morning Herald]
Most GPs, for better or worse, will be of the view that they should try an antidepressant because they are doctors, they're more likely to think of a drug option than a non-drug option. [DBP # 30, Sunday Telegraph]

Different types of counselling/therapy were mentioned as treatments in a mostly positive way.

*Internet therapy programs for depression and anxiety can be twice as effective as seeing a psychologist or psychiatrist in person.* [DBP #35, Sydney Morning Herald]

*Professor Bob Montgomery, president of the Australia Psychological Society, says there are several evidence based treatments with good success rates.* [DBP #33, Sydney Morning Herald]

Only one item collected described therapy in a negative way; that it did not help a police officer experiencing depression.

*By the time the senior detective said something was drastically wrong, a private psychologist said: “your time’s up”.* [DBP #19, Newcastle Herald]
3.2.6  *Portrayal of those with depression/bipolar*

When the media collected discussed the people with depression/bipolar (n=14), it was almost always talked about with reference to the stigma they suffer (n=13). Stigma is also portrayed as being a barrier to those suffering getting the help ‘they so desperately need’.

*The amount of stigma is getting less, but there’s still a long way to go in reducing it down to the point where people regard a mental illness in the same way as they would regard somebody who has got hypertension, diabetes or asthma.* [DBP #3, Sunday Telegraph]

*The difficulty is that we often find the person doesn’t want to admit they are experiencing the symptoms, so there is a delay in identifying them as depressed and getting them help.* [DBP #28, The Australian]

*Martin* [Martin Knapp, Professor London School of Economics and Institute of Psychiatry] *speaks about how stigma and discrimination can impede recovery to the extent that they are more harmful than the illness itself.* [DBP #2, ABC Radio National]

When public personalities come forward, outing themselves as being depressed, they and their stories are framed positively and are portrayed in glowing terms for their bravery (n=7).
Thanks to brave souls, Jeff Kennett and the former rugby league star Andrew Johns among them, the stigma is slowly receding. [DBP #33, Sydney Morning Herald]

It takes a brave man to overcome mental illness and an even braver one to spread the gospel and create awareness about it. [DBP #11, Daily Telegraph]

But in making the point that “it would be more convenient if I’d had cancer” she [politician Paula Wriedt] has been courageous in drawing attention to the stigma attached. [DBP #16, The Australian]

Diagnosis is presented as empowering; they are brave if they admit they need help, they can be easily helped by medication or therapy.

He [psychiatrist Gordon Parker] attributes this good news to the destigmatisation of depression, effective anti-suicide strategies and better and earlier treatment, especially with anti-depressants. [DBP #25, Sydney Morning Herald]

In most instances, clinical intervention is successful. Most people who seek the support of our services recover and get on with their lives. [DBP #26, Sydney Morning Herald]
Depression/bipolar is presented in the media collected as a serious problem with serious consequences; that people who have it suffer terribly. Distinctions were made in a couple of the items between ‘normal sadness’ which doesn’t have long lasting effects and depressive illness, which does.

Looking back on it I was like a zombie. I was kind of trapped in life. Nothing was the same, there was no colour. Nothing about my life interested me. I just didn’t want to be there. [DBP #21, Daily Telegraph]

[Ian Hickey] explains what depression is and it is not sadness. It is normal to be sad about the world or reacting to things. If you are depressed your body is affected and you can feel unwell physically. There can be a sense that there is no pleasure in life. [DBP #13, ABC Sydney Radio]

The effects of depression/bipolar on those who have it and their loved ones are described in extreme, and in many cases dire, terms with potential suicide being presented in seven media items as consequence in too many cases.

Bipolar disorder is a chronic illness that affects suffers for their entire lives. [DBP #12, ABC Sydney Radio]

We are faced regularly with individuals who suffer significant depression and despair for extended periods. People may express a wish to die, and some might make multiple attempts on their lives. [DBP #26, Sydney Morning Herald]
50 to 80 per cent of suicides were associated with a depressive illness. [DBP #24, Weekend Australian]

The suicide of a 15 year old in 1986 shocked me [Graham Fleming writing an editorial] and devastated the whole community. It seemed so unexpected, but on reflection there were warning signs of depression. [DBP #24, Weekend Australian]

3.2.7 Summary manifest content and latent themes: depression/bipolar

At the manifest level, the articles collected presented depression/bipolar predominantly within the medical frame; as a common problem of biomedical processes beyond people’s control; in some cases people are portrayed as genetically predisposed. This media depicts depression/bipolar as conditions that can be inherited and subsequently passed on to children.

The effects of the conditions are presented as extremely serious, to the sufferers and those around them. The media coverage depicts devastated lives, families and careers as a consequence of depression/bipolar; with those suffering with the conditions also suffering with the social stigma that comes with it.

These conditions are also depicted in some of the coverage as under-diagnosed and treated and in a few others over-diagnosed and treated, particularly in relation to children. It is seen as ‘crucial’ that people who are truly suffering are diagnosed and
treated. Those who are not truly suffering are therefore over-diagnosed; however, how to avoid being diagnosed and treated unnecessarily was absent in the discussion.

The treatments depicted in the coverage were predominantly drugs followed by a smaller proportion mentioning therapy, often in tandem with drug therapy. Drug treatment was presented in a predominantly positive light. These results reflect those found in other studies where “the solution to depression is almost unilaterally drugs, therapy or some combination of the two.”[6]

The latent themes of stigma and bravery emerged strongly in this media coverage. Stigma is seen as an obstacle to diagnosis, people are afraid to seek help for fear of being stigmatised. Stigma is also presented as something that people suffer with in tandem with the condition when they are diagnosed; it causes people to hide their condition from friends, colleagues and in cases of people with a high profile, the public. However, bravery is associated in many items with overcoming this stigma.

Those who get diagnosed and speak out about it are positioned in the coverage as brave, confronting the obstacle that is damaging their lives yet exposing them to social judgement. In every item that discussed people who ‘go public’ with their condition, the language of bravery is used, they are heroes. Therefore, the items depict those with depression/bipolar as simultaneously stigmatised sufferers and brave heroes, contingent on how they deal with their diagnosis.
Depression/bipolar is described in many cases in this coverage in dark and fearful terms, the language imagery and metaphor suggests something is out there, unwelcome but fatalistic; it will find you and blight your life. Conversely, the language depicting diagnosis and treatment are presented in much of this coverage as transformative and positive, a return to light.

3.3 Breast Cancer

The results for how the media portrayed breast cancer are presented below.

3.3.1 Manifest content

Table 8 shows that the items collected mainly came from news stories in newspapers.

<table>
<thead>
<tr>
<th>Source of the text</th>
<th>Type of text</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper</td>
<td>News story</td>
<td>40</td>
</tr>
<tr>
<td>Radio</td>
<td>Interview</td>
<td>11</td>
</tr>
<tr>
<td>Television</td>
<td>Editorial</td>
<td>3</td>
</tr>
</tbody>
</table>

As shown in Figure 4 the medical frame dominates in the media collected regarding breast cancer. Items catagorised within this frame depicted breast cancer as a biologically based pathology, described and discussed in a medical context. Biomedical treatments for breast cancer were also dominant (chemo/radiotherapy, mastectomy etc.). Treatment options other than medical interventions were not mentioned in the media coverage.
To a much lesser extent, breast cancer was discussed within the lifestyle frame. Within this frame, stories depicted breast cancer as a consequence of individual lifestyle choices; breast feeding, alcohol intake, exercise and diet etc. Items that were coded within the political-economy frame related to the Australian Broadcast Corporation (ABC) cancer cluster in Brisbane and possible other cancer clusters (18 women who worked at the ABC’s Brisbane studio between 1996 and 2006 have been diagnosed with breast cancer. The studio was abandoned by the ABC in late 2006 because of the cancer cluster). Within this political-economy frame, the contributing factors were presented as beyond a person’s control.

Figure 4: Frame of the texts (breast cancer)

Breast screening/mammograms featured prominently in the items collected (37% of all items related to breast screening). How breast screening was portrayed was dichotomised. In half of these items (n=10), breast screening was portrayed in a positive light, saving people from an early death. While the other half positioned breast screening, particularly in younger women, as a waste of health resources and potentially exposing women to serious and unnecessary treatment. This theme will also be discussed in the latent analysis.
The language used in the headlines of the print items reflects the medical frame. Headlines such as; Cancer research uncovers key clue, Catching problem cells early and Research will save lives reinforce the perspective that breast cancer is caused by a malfunctioning body, and that medical intervention is the key to fixing it. The imagery ‘catching’, ‘uncovers’ implies that breast cancer is lying in wait. Within the items, there is a pervasive sense of a need to fight which is produced through the use of language; people are ‘fight(ing)’ the ‘paralysing fear’ that comes with ‘aggressive’ cancer that ‘strikes’ without warning. Once someone is diagnosed however, they are transformed from being fearful to being ‘brave’ and ‘enduring’ the cancer ‘battle’ when they are ‘attacked’.

The results for how breast cancer is presented in the media according to the predefined questions are provided below.

3.3.2 Causes of breast cancer

Breast cancer was predominantly positioned as biological in nature, a problem of ‘misbehaving cells’. When causes were mentioned in the media collected (n=14), ten were devoted to the hereditary or genetic nature of the disease. Scientists have
identified a faulty gene linked to half of all breast cancers. [BC #3, Sydney Morning Herald]

The cells called luminal progenitor cells are responsible for breast cancers in women carrying mutations in the gene BRCA1, which make up one in five hereditary cancers. [BC #4, Daily Telegraph]

The misbehaving cells which later grow into the most aggressive breast cancers have been revealed for the first time by Australian researchers. [BC #4, Daily Telegraph]

What is implied in these media is that breast cancer is a nasty insidious villain lurking within a woman’s body waiting to strike not only them, but whole families. The only course of action available to these women was presented as regular testing and in two cases preventative mastectomies.

Bron Thomson grew up knowing what breast cancer was. Her mother, who had been sick all of her living memory, died when she was nine years old. The youngest of four children, Ms Thomson was diagnosed herself when she was 36 years old. “I think deep down there was some expectation that it would show up again in my family”, Ms Thomson said. [BC #6, Newcastle Herald]

That was all I knew as a young kid, that was how Mum had died, and even in those days there was some talk of family history of these things and I wasn’t
overly surprised when it was me, because I was so young when mum was diagnosed. Then it struck her elder sister, who was diagnosed with breast cancer at the age of 56. [BC #6, Newcastle Herald]

At 28, she had to choose to keep her breasts or have a mastectomy. [BC #8, Daily Telegraph]

As a result of the finding [BRCA gene] she had her ovaries removed and a bilateral mastectomy, and says while that was a major decision, it was one of the easiest she’s ever made. [BC #6, Newcastle Herald]

3.3.2.1 Risks of getting breast cancer

Thirteen items discussed either the risk, or reducing the risk, of getting breast cancer. Of these, seven were related to the risk for those with a family history of breast cancer and/or the BRCA gene.

It has placed a spotlight on the culprit cells which give rise to cancer and we now have a better idea of how the enemy behaves and therefore a new means on how to target them. Women carrying the BRCA1 gene mutation have a 65 per cent chance of developing breast cancer. [BC #4, Daily Telegraph]
Mrs Thompson’s mother died of breast cancer at the age of 44 and she and her three sisters and one brother have tested positive to the hereditary BRCA1 gene, which greatly increases the risk. [BC #17, Sydney Morning Herald]

Uncovering which cells are likely to cause cancer before they develop will allow scientists to design new pre-emptive medicines for women who face an increased genetic risk of the disease. [BC #5, Daily Telegraph]

One item discussed how women’s fear of getting breast cancer was out of proportion to the risk of getting it. The tenor of this item was that women should be more worried about other conditions.

Many women have an almost paralysing fear of breast cancer, but the risks are not what they seem…Globally, one in three women die of heart disease, compared with one in 25 who die from breast cancer. [BC #12, Sydney Morning Herald]

There were four media items collected that discussed ways of reducing the potential risk of contracting the disease. These were all related to potential lifestyle changes. The tone used to describe ways to reduce risk was matter of fact, not moralistic. There was no implication that if women did not follow the advice, they were somehow at fault for their affliction.
When the women had someone in their close family with breast cancer, they were found to have a lower risk of developing the disease if they had breastfed. [BC #23, Newcastle Herald]

The WCRF report recommended being as lean as possible, exercising at least 30 minutes a day and limiting daily alcohol to a single standard drink. [BC #50, Daily Telegraph]

By limiting the amount of alcohol that they drink, maintaining a healthy weight and being physically active, women can make a significant difference to their risk. [BC #36, Daily Telegraph]

Obesity, use of hormone replacement therapy and childlessness all increase the risk of breast cancer. [BC #16, The Australian]

3.3.2.2 It’s common and increasing

Breast cancer was depicted in some of the media collected as a common disease that women need to be concerned about and that its prevalence is increasing (n=10). By implication, the potential risk for women to get breast cancer is high if it is common.

Breast cancer remains one of the most common cancers among Australian women, and cases are increasing. [BC #48, ABC Radio National]
The number of women diagnosed annually with the cancer had more than doubled in the past 25 years. [BC #32, Daily Telegraph]

Breast cancer is one of the leading causes of cancer death in Australian women, with more than 13,698 new cases of the disease detected and 2,800 deaths each year. [BC #5, Daily Telegraph]

Breast cancer diagnosis reached an all-time high in 2006, when 12,600 women were told they had the disease. But that number is set to rise by more than 20 per cent over the next decade to reach 15,000 by 2015. [BC #7, Sydney Morning Herald]

Nonetheless, the increase is seen to be caused in seven of these stories by better detection methods and engaged a degree of reassurance that survival rates are also increasing.

The number of Australian women diagnosed with breast cancer every year is rising but research also shows the disease has become less lethal. [BC #32, Daily Telegraph]
With improvements in detection and treatment about 87 per cent of those affected survive five years or more from the time of detection. [BC #18, Sun Herald]

Most women will not die of their breast cancer. For the last 10 to 15 years, there has been a 2 per cent decrease in mortality every year. [BC #12, Sydney Morning Herald]

While survival rates might be on the increase, breast cancer was still presented in seven of the media items collected as a scary, silent and deadly killer. It kills about 2,600 people a year. [BC #2, Sunday Telegraph]

The breast tumour detected a decade ago on Roberta Higginson’s mammogram was tiny only a few millimetres across, and impossible to feel through the skin. But it was a particularly aggressive cell type prone to rapid spread. [BC #11, Sydney Morning Herald]

Imagine the impact this would have [blood test to detect cancer recurrence] on every woman who has survived breast cancer and lives every day in fear of its silent return either in the breast or elsewhere in the body. [BC #14, Daily Telegraph]
“I was really scared, but I wanted to do everything I could to improve my chances of survival”, she said. “It was a fairly serious situation.” She had no history of cancer in her family. [BC #21, The Australian]

Despite the media stories about breast cancer being common in Australia, there were four items expressing the view that the disease gets more attention, leading to more funding for research, than is warranted. What is suggested in these items is that there are other conditions that are being neglected in terms of research attention and funding in favour of breast cancer.

Why does no other medical condition attract anywhere near the same attention? So much education and funding is still needed for so many conditions that are more prevalent, more misunderstood and in need of more effective screening tools and treatment. [BC #43, Newcastle Herald]

We have seen what has been achieved for breast cancer. Please let’s apply that energy equally to the many other cancers and conditions Australians face. [BC #43, Newcastle Herald]

Breast cancer attracts unparalleled research funding from individuals and governments, while other cancers with higher DALYs [disability adjusted life years or burden] struggle to gain a fraction of such support. [BC #12, Sydney Morning Herald]
Underlying cause of death for women in Australia in 2007: 10,610 Ischaemic heart diseases; 6,975 strokes; 4,905 dementia and Alzheimer’s disease; 2,911 Trachea and lung cancer, 2,680 breast cancer. The same year 2,938 men died from prostate cancer. [BC #11, Sydney Morning Herald]

3.3.3 The portrayal of diagnostic criteria

The diagnosis of breast cancer is presented in the stories collected along the lines of under and over diagnosis, based on too much or too little breast screening. As mentioned previously, breast screening was described in this sample in equally positive and negative terms.

3.3.3.1 Positive accounts of breast screening

Of the twenty media stories mentioning breast screening ten presented it in life saving and affirming terms. Breast screening allows small, possibly life threatening, tumours to be detected early and gives those who may be worried peace of mind if they get the all clear. It is made clear in these items that without readily available breast screening for all women, regardless of age, people might not be diagnosed until it is too late. The implication is that it is better to be safe than sorry.

A US study into breast cancer has confirmed mammograms reduce breast cancer deaths by 50%. [BC #30, ABC Radio National]
The improved survival rates really give much hope to women diagnosed today, that if diagnosed early they are unlikely to die of their breast cancer. [BC #32, Daily Telegraph]

Older women are now more likely to be diagnosed while their cancer is in the earliest stage reflecting the success of mammography screening at finding malignancies before the woman notices changes in her breast. [BC #7, Sydney Morning Herald]

While most breast changes won’t be cancer, early detection is vital for improving survival. [BC #17, Sydney Morning Herald]

Screening had slashed the death rate from breast cancer by about 35 per cent among women aged 50-69 since mammograms for healthy women were introduced in 1990. [BC #16, The Australian]

But more importantly screening can reduce deaths by one-third. In Australia, BreastScreen has cut mortality by 21 to 28 per cent. [BC #11, Sydney Morning Herald]
3.3.3.2 Negative accounts of breast screening

On the other hand, breast screening was presented in ten of the twenty items to be economically inefficient for women outside the target age range of 50-59 and potentially exposing women, particularly younger women, to unnecessary and sometimes drastic treatment for something that may not ever develop into something dangerous. Some items presented breast screening for younger women as, in many instances, doing more harm than good. Routinely screening younger women didn’t make sense. [BC #13, The Australian]

It highlights that for younger women, the risks may outweigh the benefits [of screening]. [BC #41, The Australian]

An expert committee has recommended narrowing the net in an effort to increase screening rates for those most at risk, women aged 50-69. [BC #54, Newcastle Herald]

Screening for cancer may lead to earlier detection of lethal cancers but also detects harmless ones that will not cause death or symptoms. [BC #29, Weekend Australian]

These other factors cannot explain the higher cancer rate among screened women, which could only be explained by over diagnosis. [BC #16, The Australian]
The rationale for screening is increasingly criticised by sceptical statisticians who say it finds too many tumours that, while technically cancer, are essentially benign. [BC #11, Sydney Morning Herald]

3.3.3.3 The debate about breast screening and self-examination

During the data collection period, Cancer Council Australia released a report based on a review of BreastScreen Australia recommending barring women aged under 45 and over 75 from routine national breast cancer screening to better focus its resources.

The report of the evaluation committee found a lack of staff, and increasing demand across age groups, had caused delays in the program. It recommended that BreastScreen Australia, as a priority, deny free mammograms to women aged 40-45 and over 75, and those with symptoms or an elevated risk, in order to concentrate on screening the target age group. [BC #52, The Australian]

This resulted in outcry in some media (n=3), suggesting it would put women’s lives at risk.

It’s arrogant and irresponsible. It’s wrong to keep changing recommendations and give conflicting messages to women. There’s a tonne of scientific data in this country and others on screening that shows a significant benefit for women between 40 and 49 to be screened. [BC #15, The Australian]
Critics say the change could undermine advances in detecting breast cancer early, treating it effectively and preventing deaths. This will be disastrous for women’s health. [BC #15, The Australian]

The challenge now, he says, is to encourage more women from different backgrounds to attend BreastScreen, and to avoid getting complacent, or hearing the negative messages from the public health community. There are some downsides, but not enough to risk not being screened. [BC #11, Sydney Morning Herald]

There were also a couple of items (n=3) regarding breast self-examination that warned that it was ineffectual and can cause unnecessary fear.

Once a month I need to look for breast cancer and if I am not doing this properly I will potentially miss cancer can be a very scary thought. A lot of responsibility is placed on the woman, no wonder it is scary. [BC #12, Sydney Morning Herald]

Doctors should stop teaching women how to examine breasts for signs of cancer because of a lack of evidence that it helps. [BC #15, The Australian]

Dr Petitti’s advice is less nuanced on breast self-examination: “Women should know it doesn’t work,” she said. Two larger studies involving 200,000 women in
China and 100,000 women in Russia, showed no benefits from breast self-examinations. [BC #15, The Australian]

There is no evidence that breast self-examination actually reduces the risk of dying from breast cancer. [BC #12, Sydney Morning Herald]

However, two others claimed that it saved lives. Again, the pursuit of diagnosing breast cancer appropriately is fraught with potential contradictions for women.

The ads depict women having a quick look, or feel, of their breasts while waiting in a car wash, drying their hair or waiting for toast to pop up. It is about reinstating confidence in women to look at their own body and get to know what is normal for them. [BC #12, Sydney Morning Herald]

Newton-John discovered a cancerous lump in her breast during a self-exam while aged in her mid-40’s. “That’s why I’m so up in arms, why would they not advocate we do regular self-breast exams? It is an obvious thing to do. It is common sense.” [BC #13, The Australian]

3.3.4 The portrayal of treatments

The discussion about unnecessary and harmful screening in these ten items inevitably led to descriptions of the unnecessary and harmful treatment that could follow.
Hundreds of women each year are having treatments for breast cancer, including surgery and chemotherapy that are unnecessary because nearly one third of cancers detected by screening tests are not dangerous. It would suggest about 1,855 women each year are receiving unnecessary treatments, including mastectomies and radiation. [BC #16, The Australian]

This pointed to an overly sensitive screening process that resulted in unnecessary and sometimes life-changing treatment, such as mastectomy, for some women whose tumours did not pose a health risk. [BC #44, Newcastle Herald]

About a quarter of Australian women undergoing treatment for breast cancer have a tumour growing so slowly that it could have been safely ignored, research indicates. [BC #44, Newcastle Herald]

Women may be undergoing gruelling cancer treatment needlessly as up to one in three cases of breast cancer detected by screening is harmless. [BC #12, Sydney Morning Herald]
3.3.4.1 Severe nature of treatments

Of the 12 items mentioning specific treatments, they were all discussed in serious terms. Treatments were presented as *gruelling*, having long lasting effects, not only physically and financially but to women’s self-esteem.

*Jillian Lawrow was diagnosed with breast cancer at 44 in May 2006. She nearly died from the chemotherapy treatment needed to tackle her aggressive tumour and still faces big monthly bills for medicines.* [BC #9, The Australian]

*Jones says younger women often feel no point in taking preventative measures as they have heard so many horrible stories, preferring not to know rather than undergoing treatment so terrible or dying.* [BC #12, Sydney Morning Herald]

*All cancers are cruel, but breast cancer is particularly malevolent because of the damage endured even by survivors. Repairing that damage isn’t easy.* [BC #47, Daily Telegraph]

*The mother of two was in surgery within a week of diagnosis, started chemotherapy within three weeks, then endured radiation therapy. The hormone treatment she received brought on menopause and prevented her from having more children.* [BC #1, Sunday Telegraph]
All women want to feel normal [after having a mastectomy]. Some don’t want the daily reminder of being a breast cancer survivor. [BC #8, Daily Telegraph]

3.3.5 Portrayal of those with breast cancer

3.3.5.1 Celebrity associations

In fourteen of the media items collected, there was a description of how celebrities were used to raise awareness about breast cancer. Willingness of celebrities to put their name to the cause implies that it is a worthy cause. In some cases the celebrities mentioned in the items have had breast cancer themselves, exemplifying and embodying the disease. Sara Henderson was credited in one item for increasing breast screening in the target age range of 50-69 years old as she suffered from breast cancer and was in that range herself at the time.

Ads in the 1990’s featuring the late pastoralist and writer Sara Henderson had successfully increased participation among the key age group [for breast screening]. [BC #52, The Australian]

Here in Australia, among several breast cancer organisations, we have the McGrath Foundation, co-founded by the late Jane McGrath and her husband Glenn, one of the greats of Australian cricket. [BC #10, Sun Herald]
The behemoths of America’s National Football League recently took to the field sporting accessories such as pink cleats and pink gloves. Such is the penetration of the breast cancer awareness message. [BC #10, Sun Herald]

Celebrities are presented in the media items collected as having raised much needed awareness and in the case of pink ribbon day, research funds for breast cancer. However, young celebrity sufferers of breast cancer such as Belinda Emmett, Kylie Minogue and Jane McGrath were presented in some of the items (n=5) to have raised awareness in the ‘wrong’ people. These stories discuss how younger women who are not in the target age range for screening are misunderstanding their risk of contracting the disease, therefore getting screened and treated unnecessarily. This implies that the use of high profile sufferers that do not fit the risk profile for conditions, can cause misapprehension and amplify the risk of a condition for certain groups.

In recent years, with high profile cases such as Kylie Minogue, Belinda Emmett and Jane McGrath, suddenly it seemed as though breast cancer was everywhere, attacking women indiscriminately. [BC #12, Sydney Morning Herald]

The number of younger women being screened jumped dramatically after soap star Belinda Emmett and pop icon Kylie Minogue were diagnosed with breast cancer. [BC #54, Newcastle Herald]
Media coverage of the cancer diagnosis of celebrities Belinda Emmett and Kylie Minogue convinced more younger women to have a mammogram but experts are recommending against its use as a screening tool [in younger women]. [BC #53, The Australian]

Erroneous perceptions about the level of risk for younger women are reinforced by media coverage focussing on cases of young celebrity women diagnosed with breast cancer. The cases of Kylie Minogue and the late Belinda Emmett convinced more young women to seek a mammogram. [BC #52, The Australian]

3.3.5.2 Women’s identity, language and breast cancer

Women’s identities as mothers, wives and daughters are presented in a few items (n=5) as being inextricably linked with their diagnosis of breast cancer. The disease is presented as simultaneously strengthening family bonds while also directly affecting certain members of those families (in the case of the BRCA genes). In one headline, the hereditary genes were described as a ‘clan enemy’.

Having to stare down your mortality at such a young age has a profound effect. These days I have at least found some peace and just enjoy every moment with my beautiful family. [BC #1, Sunday Telegraph]
Women's self-worth was positioned in these items as being tied to having children. Stories about specific women generally made reference to their children/family, or their lack of children as a ‘tragedy’. In some cases a women's inability to have children, or more children was described as worse than having the life threatening disease. By implication, if a woman cannot fulfil her role in the production of children, she may be better off dead.

*Being told she could not have more children was worse than the cancer diagnosis.* [BC #21, The Australian]

*Learning she might have no more children because chemotherapy could trigger early menopause was “harder than being told I had cancer.”* [BC #20, Weekend Australian]

*Toby Robertson is an only child. He was a toddler when his mother, Cath, received the devastating diagnosis of breast cancer, so the sibling his parents wanted to give him was not to be.* [BC #19, Sydney Morning Herald]

This link with motherhood was also seen to strengthen resolve in these stories; to be there to watch their children or grand-children grow up. Again this conflation of breast cancer and womanhood/motherhood implies that the onus is on the woman to survive, not for her own sake, but for the sake of her family.
She had no history of cancer in her family and she said she was terrified she would not be able to see her son, now seven, grow up. I've had three friends die from breast cancer; many of them have left children behind. [BC #21, The Australian]

If she had not entered the BreastScreen program around the recommended time of the 50th birthday, she believes she probably would not have lived to meet 14 month old Max. [BC #11, Sydney Morning Herald]

My doctor told me that continuing the pregnancy was risking my life as well as the baby’s but I couldn’t come to terms with a termination, so I went ahead with the baby. [BC #17, Sydney Morning Herald]

As I grow older, I am trying to take better care of myself so that I’ve got the best chance of seeing how my children turn out. [BC #36, Daily Telegraph]

Conversely, the coping skills of women who don’t have a family to look after or to look after them are called into question in two items. In these instances, being single seems to imply that a woman has no supportive friends or other family.

Well educated women and those that live on their own are the hardest hit by breast cancer because they are better informed and less likely to cope with losing control over their lives. Older women, particularly those who were
divorced or widowed, were more likely to suffer low moods two years after diagnosis. [BC #18, Sun Herald]

At greater risk [of not coping well with breast cancer] were older single women, often divorced or widowed and so lacking traditional support networks of family and friends. [BC #10, Sun Herald]

The link between breast cancer and women’s self-image was overtly acknowledged in a couple of items (n=3).

The experience of having breast cancer is a personal one and is often accompanied by very complex emotions due to the fact that it strikes at a woman’s very sense of self, purpose and sexuality. [BC #18, Sun Herald]

Breast cancer is emotive because breasts are intrinsic to womanhood, body image and feeding babies. [BC #14, Daily Telegraph]

Embedded in the modern woman’s psyche is a perception of ‘dangerous breasts’. [BC #12, Sydney Morning Herald]

This association between breast cancer and womanhood is reinforced by the more subtle representations of women with breast cancer across the media items collected,
and the language used to describe aspects of their experience. In two cases, relatively non gendered issues are couched in overtly stereotypical terms.

A trip to the shops could save your life, or at least detect breast cancer early.
The clinic visit combines shopping with coffee. [BC #49, Sun Herald]

Housework can cut the risk of breast cancer. Women who do moderate to vigorous activity such as heavy housework, gardening and hiking to stay fit after menopause are 17 per cent less likely to develop the disease. [BC #24, Daily Telegraph]

3.3.5.3 War/battle metaphors

The use of war or battle metaphors to describe the disease itself, those who suffer from it and the treatments undergone by those who have it are prevalent. Those who ‘battle’ the disease are ‘brave’, if they live they are ‘survivors’ and breast cancer itself is a ‘culprit’ or an ‘enemy’.

Breast cancer is particularly malevolent because of the damage endured even by survivors. [BC #47, Daily Telegraph]
Five Australian women who have overcome their battles with breast cancer will participate in the first wave of breast growing surgery. [BC #47, Daily Telegraph]

It has placed a spotlight on the culprit cells which give rise to cancer and we now have a better idea of how the enemy behaves and therefore a new means on how to target them. [BC #4, Daily Telegraph]

Follow all the rules and you can still contract some big nasty, which will take you down without a fair fight. [BC #36, Daily Telegraph]

3.3.6 Summary manifest content and latent themes: breast cancer

At the manifest level, the media collected presented breast cancer as common and dangerous, in many cases it is portrayed as afflicting mothers, daughters and sisters, implying an intergenerational assault.

The media coverage suggests that diagnostic and treatment options for younger women are fraught with difficulty. They are exposed to stories about young women suffering and dying early from breast cancer, even though the evidence suggests that the older you are the higher your risk of getting breast cancer. If they have a mammogram, they may be exposing themselves to invasive and unnecessary treatment; alternatively they may miss a potentially life threatening tumour and consequently die or not be able to have children/more children/see children grow up. For older women, the articles are unequivocal, mammograms save lives.
The treatment for breast cancer is portrayed in the media collected as *gruelling*, something to be *endured*. The consequences of treatment are also presented in harrowing terms, women’s bodies are disfigured and their self-esteem and identity affected.

The latent theme of women’s gendered identity emerged clearly in the media coverage about breast cancer. It is portrayed overtly in some articles, and more subtly in others with centrality of family in women’s lives presented as ubiquitous and self-defining. Family and children are depicted in the stories as a bolster to the imperative to survive. There appears to be an implication in a couple of the articles that if a woman does not have those responsibilities, she may have nothing to live for. These results mirror those from a similar study where “the threat of the disease seems to be less a threat to life itself than a threat to the proper, i.e. gendered enactment of life.”[209]

The language imagery and metaphor in the media coverage is fearful and warlike, describing breast cancer in highly emotive ways. Women are simultaneously, *suffering* and *living in fear* as well as *brave* and selfless (particularly when they put their children’s well-being ahead of their own when it comes to treatment during pregnancy). This use of language in media about cancer in general as well as breast cancer in particular has been found in studies elsewhere.[209, 210]

### 3.4 Obesity

The results that follow describe how obesity is portrayed in the media collected.
3.4.1 Manifest content

Table 9 shows that the items collected mainly came from news stories in newspapers.

<table>
<thead>
<tr>
<th>Source of the text</th>
<th>Type of text</th>
<th>n</th>
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<tbody>
<tr>
<td>Newspaper</td>
<td>News story</td>
<td>51</td>
</tr>
<tr>
<td>Radio</td>
<td>Editorial</td>
<td>10</td>
</tr>
<tr>
<td>Television</td>
<td>Interview</td>
<td>1</td>
</tr>
</tbody>
</table>

The lifestyle frame dominates in the media collected regarding obesity, followed by a much lower proportion of articles where obesity is presented in the medical frame (see Figure 5). A few (n=4) items collected were coded as presenting obesity in the political-economy frame. These described the influence social and economic disadvantage, as well as public transport infrastructure and town planning, have on obesity rates.

Within the lifestyle frame, people who are obese are presented as eating too much of the wrong things and exercising too little. Responsibility, in these stories belongs to the individual. Within the medical frame, obesity is presented as being influenced by genetic predisposition which makes it more difficult for them to lose weight. Gastric or lap-banding surgery is referred to in both frames.
Table 10 shows that when treatments are mentioned in the coverage, they predominantly relate to lifestyle changes and these tend to involve recommendations for healthier eating and more exercise. During the data collection period, the then Federal Government announced that Medicare would fund laproscopic gastric banding (referred to hereafter colloquially as lap-band surgery) for people who are obese. This led to quite a few items on this topic. In many cases lap-band surgery was discussed in conjunction with lifestyle changes. Only four items on this topic referred to medications as a treatment for obesity. In many instances the articles referred to the cost to society, tax payers and health care system resulting from the lifestyle choices obese people make. These costs were discussed in the items in terms of the ongoing health issues obese people face, as well as the costs associated with lap-band surgery.
Table 10: Treatments for obesity

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Percentage (n)</th>
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</thead>
<tbody>
<tr>
<td>Lifestyle change</td>
<td>74% (n=39)</td>
</tr>
<tr>
<td>Gastric banding</td>
<td>34% (n=18)</td>
</tr>
<tr>
<td>Drugs</td>
<td>8% (n=4)</td>
</tr>
</tbody>
</table>

There are mixed messages in the language used to describe obesity. On one hand the language is overtly medical; there is an obesity 'epidemic' or 'plague' causing a 'public health crisis' which is 'alarming medical professionals'. However, those who are obese are described in the articles in moralistic rather than medical terms. They are referred to in some instances as 'lazy', 'greedy' or 'slothful' rather than people who are afflicted with a medical condition.

The headlines for the print items also reflect mixed messages; there is the serious Weight danger warning, A third of teens risking an early death, Men in denial over fat, Kilos limit women’s life span, Obesity linked to gene variant. However, others are flippant, almost jokey; Throwing money at obesity just a waist, Fatuous and flabby, Weight of opinion, Chewing the fat, A fat lot of good this research does, Surgery for teen fatties and Weighty issue on the rise.
The results for how obesity is presented in the media according to the predefined questions are provided below.

3.4.1.1 Causes of obesity

Obesity is presented in 79 per cent (n=49) of the media items to be primarily caused by the way people live their lives, the lifestyle choices they make. These causes come with the underlying implication that obese people only have themselves to blame for their predicament.

*If a smoker wants to improve their health, let them quit. The same goes for those addicted to over eating, just eat less.* [OB #52, Daily Telegraph]

*Many of us are eating too much. That’s the overwhelming, and depressingly simple, cause of obesity.* [OB #29, Sunday Telegraph]

*Obesity is about eating too much. Exactly what you do or eat matters less than simply reducing calorie intake.* [OB #25, Sydney Morning Herald]

*A large number of obese people owe their obesity to greed. The majority just eat too much and sit on the couch a lot, plain and simple.* [OB #19, Daily Telegraph]
Poor diet and lack of exercise are clearly diagnosed to be the cause of their obesity. [OB #54, The Australian]

While the causes of obesity are mainly presented in the data collected as resting with the individual, in some instances, their choices are seen to be influenced by factors outside their control and fit in to the political-economy frame (n=4). In these circumstances blame is mitigated. Sedentary lifestyles and work styles, the ready availability of fast food, the effectiveness of fast food advertising, the way urban centres are designed, the lack of time people have to shop, eat properly and exercise are all cited as examples. Obesity is also seen in these items to be influenced by socio-economic factors, which raises the possibility that it can be a marker for disadvantage and may follow other demographic patterns such as unemployment rates. One item mentioned political-economic factors, however the tenor of the article was predominantly lifestyle related.

There is another layer of complex causes psychological, social, environmental and economic that are now baffling politicians, doctors, scientists and everyone else. [OB #29, Sunday Telegraph]

Local governments also make decisions that influence residents’ ability to eat well and be active. [OB #37, Weekend Australian]

We can educate children about healthy food and the importance of physical activity and how to make healthy decisions, but these positive efforts will be
undermined if communities are poorly suited to supporting healthy behaviours. [OB #20, Sydney Morning Herald]

Solving Australia’s weight problem needs a co-ordinated effort across a diverse range of disciplines, from increasing rates of breast feeding to forward thinking public transport infrastructure and town planning. It is a difficult and demanding job. [OB #37, Weekend Australian]

While it was difficult to control people’s diet, government regulation such as a ban on transfats and limits on saturated fats in food would help. [OB #26, Sunday Telegraph]

The social and economic factors that lead poorer communities to have higher obesity rates need to be confronted and tackled honestly. [OB #37, Weekend Australian]

The poor and their children are more prone to obesity than the rich in the same society. The current distribution of obesity appears particularly undesirable, as it is likely to perpetuate the vicious circle linking obesity and disadvantage by intergenerational transmission. [OB #22, The Australian]

What does exist are pockets of great social and economic disadvantage where people don’t have the education or social capital to give their families a good
diet and enough exercise. You can map obesity rates by postcode. [OB #20, Sydney Morning Herald]

In nine cases, obesity is presented within the medical frame, as having a genetic or biological cause. In these instances the individual blame apparent in the other items in the lifestyle frame is completely mitigated. It is not the fault of the obese person; it is the fault of biology.

An international research consortium involving 34 institutions has found that people who inherited gene variant NRXN3 have a 10-15 per cent greater chance of being obese. [OB #60, Newcastle Herald]

As for the part heredity plays in weight gain, occasionally there’s a single gene that’s to blame, such as one that interferes with the production of leptin, a hormone that regulates appetite. They might be told by a health professional to follow a kilojoule allowance but that advice comes without any understanding that some people have genes that push them to eat more. [OB #27, Sun Herald]

A gene variant associated with alcohol and drug addiction has also been found to increase the risk of obesity. [OB #60, Newcastle Herald]
One item succinctly encapsulated the wide variety of possible causes of obesity.

Apart from the usual gluttony and indolence suspects, submissions blamed food marketing, food science, failure to sleep, failure to breastfeed, failure of the government to fund gym classes, genetics, unhappiness, helicopter parenting, stress, obseogenic environments, cultural change, poverty, education and, of course, mothers. If that’s not enough, there’s also the documented effect of television lowering the metabolic rate in children to the tune of three hours exercise. Or the possible role of Bisphenol-A (or BPA), a plastic polymer widely used in food packaging, dental polymers and babies’ bottles. [OB #25, Sydney Morning Herald]

A total of sixteen media items collected referred to obesity in children. It is clear from this media coverage that when it comes to children, causes for obesity and in many cases blame, falls on parents, schools and fast food advertising, rather than choices the child makes. It is seen to be, if not acceptable, understandable that children are getting larger given the society we live in.

Encourage parents to limit the time children spend watching television and computer games. [OB #24, The Australian]

Twenty per cent of US children are fat and childhood obesity is the country’s worst health crisis, experts say, urging parents to get their kids to exercise and eat properly. [OB #61, Newcastle Herald]
Primary school pupils identified as being overweight will automatically be offered a place on a state funded diet and exercise scheme. Although parents can refuse to send their children to the classes, ministers hope the majority will attend. [OB #42, Sydney Morning Herald]

School canteens can also be a problem for young Australians who are overweight. These days most school canteens are trying to provide healthy food but too many are still filled with bad food such as pies, hot chips, lollies and chocolates. All school canteens must become much healthier and encourage healthy eating. [OB #28, Newcastle Herald]

He [Professor Paul Zimmet, Director of International Research, Baker IDI Heart and Diabetes Institute] urges that efforts be made to encourage children to take up exercise at school. [OB #48, ABC Radio National]

Overweight children are more likely than children within the healthy weight range to stay overweight into adulthood, especially without their parents help. [OB #14, Sunday Telegraph]

3.4.2 Risks of getting obesity

While the individual is presented as responsible for choosing what and how much they eat, there is an acknowledgement that we are at risk of becoming obese because we are bombarded with enticements to eat too much of the wrong things by vested corporate interests.
We are hard wired to love tasty, fatty, sweet sustenance and now there is a multi-billion dollar industry helping to fulfil those primal instincts in every supermarket and convenience store. They’re cheap, colourful, aggressively advertised and we’re easily seduced. [OB #29, Sunday Telegraph]

In these recessionary times, fast food is on the increase. McDonald’s has announced plans for 55 new restaurants while KFC and Pizza Hut are also, like our waistlines, expanding. [OB #25, Sydney Morning Herald]

Children are seen to be particularly at risk and susceptible to the advertising of unhealthy foods and six of the items referred to the necessity to ban or curtail how and when unhealthy foods are advertised.

Junk food advertising was one of the main factors pressuring children to eat in an unhealthy fashion, and life expectancies could fall as a result. The government needs to consider legislation restricting the advertising and marketing as it is simply everywhere. [OB #24, The Australian]

Junk food ads could be cut in children’s TV time and there could be new voluntary restrictions culling salt and fat in packaged food. [OB #21, Daily Telegraph]

All you have to do is have Ronald McDonald kicking his football with the golden arches on it and it represents a healthy lifestyle. [OB #23, The Australian]
Successful marketing of high energy junk food is increasing consumption of the foods by children. [OB #38, ABC Radio National]

3.4.2.1 We’re getting fatter

The media coverage expressed concern about the growing ‘epidemic’ of obesity and also described a sense of fear that it is getting out of control thereby increasing the risk of more people becoming obese (n=19).

He grimly warns that for the first time in hundreds of years our children’s life expectancies will be shorter than our own [due to obesity]. [OB #20, Sydney Morning Herald]

Australia had become the fattest nation. A future fat bomb was ticking ever louder. [OB #20, Sydney Morning Herald]

Obesity is becoming a more common concern, with about 25 per cent of Australian children overweight or obese. [OB #14, Sunday Telegraph]

The National Health Survey released data that reveals 68 per cent of men and 55 per cent of women are overweight or obese. These figures show a steady increase from the 1995 figures of 64 per cent for men and 49 per cent for women. [OB #34, Sun Herald]
The nation’s obesity rate is climbing with more than 60 per cent of adults now overweight or obese. [OB #30, Daily Telegraph]

It’s [ignoring girls’ weight problems for fear it will damage their self-esteem] the alarming issue that can no longer be ignored and one that is being blamed for an alarming rise in obesity in young girls. [OB #2, Daily Telegraph]

As Australia battles a growing obesity crisis, the prevalence of Type 2 diabetes will soar, with 7.2 per cent of adults expected to be diagnosed with the disease by mid-century. That’s twice current levels. [OB #6, Newcastle Herald]

“[Obesity] has become such a crisis that governments are struggling to develop a comprehensive strategy to deal with the problem across the age spectrum,” Professor Fitzgerald wrote in the Medical Observer Journal. [OB #16, Daily Telegraph]

In sixteen items, the coverage reported the ‘alarming’ growth in levels of childhood obesity and raised questions about what should be done about it.

I don’t think it’s alarmist to say that we are actually experiencing an epidemic [in childhood obesity]. It was revealed that the proportion of boys aged seven to 15 who were overweight or obese had more than doubled from 11 per cent in 1985 to 23.7 per cent in 2007. [OB #24, The Australian]
It is very important to recognise that based on all recent Australian data, the levels of overweight/obesity in children are unacceptably high, and present a major public health problem that needs to be tackled. [OB #59, Newcastle Herald]

Despite a decade of healthy food and lifestyle propaganda in schools and on television, things are getting worse. In children, the fat figures have doubled in 20 years. [OB #25, Sydney Morning Herald]

### 3.4.3 The portrayal of diagnostic criteria

There was only one use of the term ‘diagnosis’ in the media when it comes to obesity, rather obesity is defined or assessed according to Body Mass Index (BMI) levels (e.g. obese BMI being between 30-35, morbidly obese over 40). BMI levels were discussed in six items. In four of these items, there was just a dry recitation of figures. In two of the items, the use of BMI as indication of fitness or overall health was questioned.

There is little evidence to suggest that anyone with a BMI in the overweight category, who remains physically active, according to modern guidelines, will be subject to increased health risks or a reduced life span. [OB #17, The Australian]

As you can’t be thin and also be obese, what was implicit across the items was that formal diagnosis wasn’t necessary to the observer; one only has to look to see if someone is obese.
3.4.4 The portrayal of treatments

The treatments discussed for obesity in the media collected were predominantly lifestyle interventions, with a smaller proportion discussing lap-band surgery and the use of drugs as a treatment option virtually absent from the stories.

3.4.4.1 Lifestyle interventions

As stated previously, obesity was presented in the articles collected as being caused primarily by eating too much and exercising too little. Within this frame, the ‘cure’ is presented explicitly and by implication to be simple and straightforward, eat less and exercise more (n=39).

The cure for obesity in almost every case is for individuals to lose weight through a balanced diet and lots of exercise. [OB #51, The Australian]

[Extract from interview with Dr James Wright and Roger French, director of the National Heart Society of Australia] Rather than eating junk, people should eat food low in fat, starch and sugar. He says good foods such as Wheet-Bix are cheap compared to other junk food we are killing ourselves with. [OB #11, ABC Radio National]

The foundation [Australian Heart Foundation] has begun a campaign in Western Australia, Unplug and Play, which encourages parents to limit the time
children spend watching television and playing computer games. [OB #24, The Australian]

People need to get active by doing 30 minutes of exercise per day, whether it’s netball, yoga, dancing or football. [OB #28, Newcastle Herald]

The Heart Foundation wants to see people stay in healthy weight and help them get back into a healthy weight range. That’s possible by looking at what people are eating and their activity levels. [OB #34, Sun Herald]

3.4.4.2 Lap-band surgery

As mentioned previously, the then Federal government announced during the data collection period that lap-band surgery would be provided free of charge to obese people under Medicare. This resulted in a flurry of media attention on the topic (n=18) at the time of the announcement, describing the positives and negatives of the free procedures. The positive factors associated with the taxpayer funded procedure, were that the cost of the surgery to the public purse was outweighed by the savings made by having fewer obese people needing treatment for associated health issues.

They argue the move would make results in substantial taxpayer savings as it would avoid the onset of diseases later in life. [OB #46, ABC Radio National]
Taxpayers should pay for the overweight to have their stomachs stapled to fight the nation’s crippling obesity crisis, a parliamentary committee said. [OB #18, Daily Telegraph]

Not only is weight loss achieved with surgery, but it is associated with a significant improvement in diabetes, hypertension, sleep apnoea and general lifestyle. Obesity surgery, and particularly laparoscopic banding, is not a panacea in the management of severe obesity, but it does appear from the evidence available to offer a significant benefit to a large number of patients. [OB #9, Newcastle Herald]

With the gastric bypass procedure, the effect on diabetes could be almost instant. Some patients come in to hospital on insulin and go without it. [OB #15, Sydney Morning Herald]

The negative factors associated with Medicare funding the surgery were described in terms of people getting free treatment who didn’t deserve it: they did it to themselves and the taxpayer shouldn’t have to pay for it.

Nor is it clear why the state must surgically save people from themselves. Australians undergoing laparoscopic gastric banding surgery are not my responsibility as a taxpayer nor should they be anyone else’s other than the sufferer. I’m sick to death of footing the bill for the self-inflicted problems of others, be they health or financial. [OB #54, The Australian]
I object strongly to paying for people to have their stomachs stapled or to have lap-band surgery. Don’t taxpayers fork out enough for loser dole bludgers? Now we have to take responsibility for people who don’t know when to stop eating? [OB #25, Sydney Morning Herald]

Another implication of publically funded lap-banding is that we no longer regard ourselves as discipline-capable. [OB #25, Sydney Morning Herald]

Obesity is no longer a simple personal trait but an official chronic disease, a public health issue. Prevention would be preferable, sure. But not to worry. If you can’t help pigging out, nanny will reach in through a little keyhole and strangle your stomach for you. [OB #17, The Australian]

3.4.4.3 Drugs

The mention of drugs to treat obesity was virtually absent in the items collected in any meaningful way. One item discussed the potential to develop a treatment from cattle food.

A grain widely used in stock feed could be a new weapon in the fight against Type 2 diabetes, cardiovascular disease and obesity according to a West Australian Scientist. [OB #7, Newcastle Herald]
One item referred to drug treatment only as part of an editorial about how obese people are demonised.

No one questions the use of drugs to lower cholesterol or high blood pressures conditions that can be influenced by genes. But mention drugs or surgery as a way to help weight loss and it becomes “the easy way out”. [OB #27, Sun Herald]

Two other items discussed drug treatment, one in a positive and one in a negative way.

A breakthrough by medical researchers at the Garvan Institute in Sydney is raising hopes that an effective drug treatment for obesity may not be far away. [OB #1, ABC Radio National]

As part of an editorial discussing various weight loss strategies, the writer comments; Merck Sharp & Dohme opportunistically pushes its new weight-loss drug. [OB #25, Sydney Morning Herald]

3.4.5 Portrayal of those with obesity

The portrayal of obese people has been outlined in the presentation of the results thus far… they are greedy A large number of obese people owe their obesity to greed… they have no self-control Now we have to take responsibility for people who don’t know when to stop eating…. and they only have themselves to blame The majority just eat
too much and sit on the couch a lot, plain and simple. A couple (n=3) of items directly questioned the propensity to blame obese people for causing their condition.

The question comes from the extent to which this can be easily seen as some kind of weakness, but we know it’s not that easy sometimes and I think we need to get away from this kind of blame. [OB #18, Daily Telegraph]

We can point the finger squarely at a conspicuously over-rounded abdomen or a double chin and blame it for its contribution to the escalating health bill, whereas inconspicuous characteristics such as physical inactivity or poor food choices are much harder to pin down. [OB #17, The Australian]

Because of their size, we make assumptions that someone has been overeating, when they could have been restricting their food intake all week. It’s unacceptable to attack someone on the grounds of their race or religion, but overweight people are fair game. [OB #27, Sun Herald]

When the ‘cure’ is seen to be simple, by implication it is easy to blame obese people for not undertaking these straightforward measures; it comes down to the individual and their choices. This blame is reflected in five of the items. They may be time poor, but they choose to eat junk food, their job might have them sitting in front of a computer all day, but they choose not to exercise before or after work. It is important for people to be prepared to change their lifestyle. [OB #34 Sun Herald] When peoples’ life choices
are positioned as the cause of their obesity, and they don’t take what is presented as easy steps to change their habits, the blame, in some instances can be quite vitriolic.

Among the usual accusations that innocent burger flippers and chip fryers are to blame when individuals eat too much and exercise not at all. [OB #51, The Australian]

The following item came from an editorial about lap-band ing.

Something certainly needs to be done about the ever increasing number of fatties but given in most cases it is self-inflicted, or should I say self-indulgent, perhaps sewing the mouths in the shut position may be more cost-effective. [OB #19 Daily Telegraph]

The following two extracts came from a blog about obesity run by the Sunday Telegraph and published in an editorial in Sunday Life magazine.

Fat people are not fit, so they die early from heart disease and diabetes. That is the way it goes. Maybe we should just let these people die off; it is evolution. [OB #27, Sun Herald]

Just stop them breeding before they keel over. They chose that lifestyle; it is not like being gay or handicapped. [OB #27, Sun Herald]
The cost to the Australian health system due to obesity was discussed at length in the media items collected (n=25). The costs were referred to in both general and specific terms. When referred to in generalities, the items collected quantified how much obesity was costing Australians in dollar figures. These costs were, in the main, referred to in relation to associated health conditions caused by obesity.

*The Australian Government spends up to $1.5 billion a year on direct health costs associated with obesity.* [OB #31, Sun Herald]

*The country is spending $58 billion a year on obesity.* [OB #51]

*A national fat register should be set up to gather data to tackle the whopping $58 billion black hole that the obesity epidemic left in the national economy last year.* [OB #18, Daily Telegraph]

*The cost of obesity is reported to be rising to over $60 billion a year.* [OB #38, ABC Radio National]

*The costs will have bankrupted our medical benefits scheme. Something has to change.* [OB #25, Sydney Morning Herald]

The financial costs associated with obesity aside, the media collected also refers to the significant health and social effects. Many articles discuss how the flow-on health
effects from obesity are far reaching, causing damage in nearly every part of the body with lasting side effects.

*Excess weight can lead to: Having bone or joint problems, or experiencing sleep difficulties; suffering high blood pressure, high cholesterol levels, Type 2 diabetes or high insulin levels, diseases of the liver and gall bladder; and increased risk of heart disease, diabetes, respiratory disease and cancer.* [OB #14, Sunday Telegraph]

*He said it [obesity] could lead to gestational diabetes, pre-eclampsia and delivery problems.* [OB #10, Sydney Morning Herald]

*Childhood obesity contributes to the epidemic of heart disease and diabetes in Australia.* [OB #48, ABC Radio National]

*Obesity increases the risk of asthma. Fat deposits in the chest wall can push against lungs and diaphragm, making it harder to breathe. Obesity is a major cause of sleep apnoea. Sleep apnoea itself increases the risk of high blood pressure, stroke and heart disease.* [OB #31, Sun Herald]

*Obesity affects the gall bladder’s metabolism, increasing the amount of cholesterol in the liquid bile and this makes it difficult to digest fats. Gall stones can cause pain, vomiting, inflammation and infection. Obesity is also a risk factor for cancer of the gall bladder. Fat causes the liver to enlarge and is linked
to scarring of the liver, cirrhosis, cancer of the liver and liver failure. [OB #31, Sun Herald]

*Obesity significantly increases the risk of heart attack, congestive heart failure, angina and abnormal heart rhythm. The risk of developing arthritis is increased with every kilogram that you increase in weight.* [OB #31, Sun Herald]

*Obesity in middle age could cut a woman’s chance of being healthy at 70 by almost 80 per cent.* [OB #41, Daily Telegraph]

The social impacts of obesity are referred to in the items, as well as how obesity affects the physical body. These effects are mainly discussed in terms of how obesity has had adverse social consequences for the sufferer; causing them emotional distress.

*Excess weight can lead to: being teased, bullied or ignored by their peers; having low self-esteem and poor body image; feeling too self-conscious to play sports and games; trying dangerous fad diets and skipping meals.* [OB #14, Sunday Telegraph]

The following extracts came from a blog about obesity run by the Sunday telegraph and published in an editorial in Sunday Life magazine.
As she got older, she delayed going home from school each day to avoid being bullied. After leaving school, she enrolled in a hair dressing course, but because of her size she couldn’t find an employer willing to give her an apprenticeship. [OB #27, Sun Herald]

Most overweight people interviewed had felt humiliated or discriminated against either as children or adults. [OB #27, Sun Herald]

The first day I realised I was different was when I was at primary school and a friend said, I can’t play with you anymore because you’re fat. By then she was seven years old and weighed 60 kilos. [OB #27, Sun Herald]

People reported being publically abused in supermarkets or on public transport in ways that were calculated to humiliate them, with comments like, ‘get out of the way fatso’ or ‘the trouble with fat people is they take up so much space’. [OB #27, Sun Herald]

It’s not so much the comments it’s more the giggling that goes on behind your back and the feeling that everyone is looking at you. [OB #27, Sun Herald]
3.4.5.1 Summary manifest content and latent themes: obesity

At the manifest level, obesity is presented in the media collected as common and increasing, having a huge impact on individuals and society. The impacts on society are depicted as costs, to the public health purse for treatment of associated conditions and lap-band surgery. The impacts on the individual are portrayed both in health and social terms. Lifestyle change (eat less, exercise more) was the dominant ‘treatment’ depicted in the media coverage. Lap-band surgery was also discussed in many items, primarily in terms of the costs associated with providing it through Medicare, although there was a little discussion about the positives and negatives of the procedure. Drug treatment was virtually absent in this media coverage.

The latent theme of individual responsibility emerged strongly in the media coverage. The items predominantly described obesity as being caused by individuals, who choose to not take steps to address their condition. Some of the articles did acknowledge that people are influenced by the society we live in; the ready availability of fast food, the ubiquitous nature of its advertising, urban design and the sedentary nature of work among other factors. However, this does not appear to mitigate blame for the individual. Obese people are still pilloried for their condition. The perception of choice allows for moral superiority.

Children on the other hand have blame for their obesity deflected to societal pressures and their life circumstances. However, when these children grow into adults, by implication these factors no longer apply and fault appears to be directed predominantly toward the individual.
In the articles, the blaming of the individual centres primarily on the cost to ‘the rest’ of us for escalating pressure on the public health budget for associated health conditions as well as for the funding of lap-band surgery. The thrust of the argument is that if people choose to eat badly and not exercise and therefore have health complications, the tax payer should not have to pay for it. This shifts the focus for treatment from the condition to the cause: if you get sick because of your life choices, you shouldn’t expect anyone else to foot the bill.

The language used in the texts is conflicting. Obesity is couched in medical terms ‘epidemic’, ‘public health crisis’ etc. which implies it is a serious personal and public health issue. However, the language used to describe its sufferers is in many instances flippant and derogatory; something that is acceptable to poke fun at, implying that it is not serious.

4 Discussion

The medical frame dominates for depression/bipolar and breast cancer while the lifestyle frame dominates for obesity. Within the medical frame, depression/bipolar and breast cancer are seen primarily to be the result of genetics and a malfunctioning body. Treatments are presented within the medical model; the aim is to ‘fix’ what is wrong with the body with medical intervention and/or therapy. For depression/bipolar, unlike breast cancer, length of treatment was absent in the discussion. There was no mention of ‘cure’ per se, rather the dialogue focussed on management. The ‘treatment’ for obesity was predominantly seen to rest with individual choices.
The social meaning associated with diagnoses shifts according to the condition. For depression/bipolar, the point of diagnosis is presented as positive, exposing those afflicted with a way forward to improve their lives. While there may be stigma associated with diagnosis, those who have the condition are ‘brave’ for over-coming it. Conversely, for those with breast cancer, diagnosis was presented as a scary thing. Treatment is frightening, perhaps life-threatening and confronts women’s femininity and sense of self. Depression/bipolar and breast cancer are presented as insidious; sneaking up on people, while diagnosis for obesity is presented in an overt way. It’s obvious if someone is obese.

The language used to describe all three conditions is medical, there is an obesity ‘epidemic’, depression/bipolar is an insidious ‘disease’ and breast cancer is a ‘silent killer’. For obesity, this sombre tone is interspersed with derogatory, sometimes jokey language in some articles which reveals an extra, deeply rooted, social stigma for this condition. There is a strong negative constraint on the use of flippant language to describe depression/bipolar or breast cancer in the mainstream media. These conditions share a social validation that is missing in the media coverage of obesity.

Celebrities were used to raise awareness and de-stigmatise breast cancer and depression/bipolar. These celebrities or high profile spokespeople lend their name to these ‘worthy’ conditions that they may suffer from themselves. Obesity enjoys none of that cache; no one is coming out in public being ‘brave’ in their attempt to de-stigmatise obesity. In fact when celebrities do gain weight they tend to retreat from the public gaze; their appearances in the media are often ‘caught’ without their consent and used to embarrass or shame them.
Depression/bipolar was selected as a condition for analysis because it met the criteria identified in the literature and the in-depth interviews as having been subject to disease mongering. In many of the articles, depression/bipolar is presented in a way that is consistent with the disease mongering critique: the medical model is a given, pharmaceutical treatment is positioned as positive and sufferers are regarded as brave when they seek diagnosis. The active process of pharmaceuticalisation is also engaged in the way depression/bipolar are presented in the media collected. These results, as well as those found by Clarke and Gawley⁶, highlight the transformation of depression/bipolar as “human conditions, capacities or capabilities into pharmaceutical matters of treatment or enhancement.”⁷ Nevertheless, the potential for over diagnosis was raised in a couple of articles. A warning then emerged in a few items, expressed explicitly or not, that over treatment could potentially be the result.

Clarke and Gawley⁶ argue that the way depression has been portrayed in the media has shifted over time and simultaneously, the portrayal of treatments has shifted as well. In the 1980’s depression was seen to be caused by all manner of things. The cause was not necessarily biomedical. Similarly, treatments in the 1980’s were presented predominantly as “varieties of self-help and psychotherapy.”⁶ Post 2000, depression has been presented in the media as predominantly caused by a malfunctioning body.⁶ The solution to this is “almost unilaterally drugs, therapy or some combination of the two and…..neither therapy nor drugs can be bought by the lay patient without the intervention of a medical expert.”⁶ As this research suggests, this trend in the portrayal of depression in the media continues.

Breast cancer was selected for analysis because it was a condition unlikely to be subject to disease mongering. The findings of this research support this view. While
the medical frame and associated medical interventions dominate in the items, these articles also express concern about potential over treatment and the need to be wary about screening. Further, treatment for breast cancer was described as generally unpleasant. The effect on a sufferers’ self-identity was described in negative terms; a necessary evil to be sure, but undeniably an evil. Mastectomies, chemotherapy and their associated side effects/social effects were presented as gruelling, certainly not something to be desired; whereas, the converse was true for depression/bipolar. There was strong encouragement to seek help, to be saved from misery.

There was some discussion about how women could reduce their risk of getting breast cancer through lifestyle changes; however, breast cancer doesn’t attract the same degree of victim blaming or moral stigma as obesity. No mention was made in the articles of the cost to the tax payer for spending on breast cancer treatment if women did not change their lifestyle according to the recommendations. In essence the media collected imply if you are obese because of the way you live your life you shouldn’t expect to get help with treatment, but if you get breast cancer where genetic factors are not clearly present, treatment is a given with no guilt attached.

Obesity was selected for analysis because it is a condition where the moral imperative for maintaining health is seen as primarily vested with the individual. The way obesity is represented in the media offers a contrast with conditions caused by factors which are primarily outside the sufferer’s control. Saguy and Almeling (2008) describe how “an additional layer of morality has been added to body weight and eating as controlled appetite and trim bodies have come to represent healthy living in a society where the pursuit of health is a moral end in itself”. While the language used to describe
obesity is medical, the treatments discussed are predominantly lifestyle related (only 4 items mentioned drug treatment and it was not the focus of the items).

In extreme cases, lap-band surgery is discussed as a treatment option; however, there is much debate about whether the procedure should be publically funded. The results regarding how obesity is portrayed in the media; the individual blame and moralistic overtones found in both the manifest and latent levels of analysis mirror those found in other studies.[217, 218] “Body weight in particular symbolised self-restraint, with a thin body a testament to control and an overweight body signifying the lack of will power and self-indulgence.”[194]

For obesity, the cause of the condition is predominantly presented in the media coverage as the individual’s fault; they did it to themselves and expect society to pick up the tab for their ‘lazy’, ‘greedy’ ways. While there was some discussion regarding a possible genetic predisposition to be obese, this is seen to be able to be overcome by lifestyle changes and strength of character. When it comes to how obese children are presented in the items collected, the pressures of western society (e.g., junk food advertising) and social structure are seen to be powerful influences; mitigating some of the blame for obesity. These pressures don’t seem to absolve adults.

When perceptions are naturalised they become more powerful and difficult to contest.[213] In this case that to be healthy, striving for optimal health is good. To not do that is bad. These representations or meanings aren’t shaped in a vacuum. They tap into circulating cultural/social narratives that are present in the culture. There are strong
negative perceptions of obesity circulating within the culture and they are clearly naturalised in the media coverage.

By implication, if obese people choose their lot and are condemned for it, people who are not obese must be virtuous, with the moral strength to overcome the societal pressure obese people cannot. This reflects how, according to Metzl (2010), some aspects of health are positioned ideologically, “the definition of our own health depends in part on our value judgements about others”.[219] Metzl (2010) describes this process with reference to obesity thus:

“When we encounter someone whose body size we deem excessive and reflexively say, “obesity is bad for your health”, what we mean is not that this person has some medical problem, but they are lazy or weak of will.”[219]

However, complicated cultural narratives influence the attribution of blame. For example if someone chooses to play rugby knowing that doing so could cause an injury, the same moral outrage does not apply if they break a leg and require subsequent medical treatment. Similarly, if someone has diabetes caused by genes the cost of treatment isn’t an issue, but if they have diabetes caused by obesity it is. So the condition diabetes does not have a moral value, however, the treatment of it does if obesity is a factor. Any of the associated health effects taken in isolation don’t necessarily attract a blame/morality response. This raises the question of where the line is drawn. If you restrict subsidised health care to the ‘deserving’ what happens to sky divers or those who contract heart disease from lifestyle factors, but who are not obese?
5 Conclusion

The media showed some of the different discourses about the conditions of depression/bipolar, obesity and breast cancer that can appear in the media. The data showed that the media air different framings of conditions, including criticism of medicalisation, confirming the observation of pharmaceuticalisation theorists that the media can be both critical and celebratory regarding stories of illnesses and treatments. The media data only lightly suggested an emphasis on pharmaceutical solutions.

What was common across all three conditions was the notion that consumers should take the necessary steps to be healthy. For depression/bipolar it was see your doctor and get treatment, for breast cancer, women (particularly older women) were entreated to get breast screened, for obese people the message was change your lifestyle and lose weight. The message across the media coverage is that people with the selected conditions need to be restored to health; that is the ultimate goal.

Critics contend that conditions are presented in the media in scary ways, making consumers think that a condition may be more prevalent or serious than is warranted. The use of dark, frightening language, imagery and metaphor was evident in the media collected, however, it was common in both the depression/bipolar and breast cancer coverage. It is possible that consumers could be ‘scared’ into thinking they have depression/bipolar and subsequently seek treatment and the same is true for breast cancer. It is therefore not the ‘scaring’ that is at issue (public health campaigns often use the same imagery e.g., anti-smoking or AIDS campaigns), it is the treatment associated with the condition that is of concern. There was no mention in the
literature review or in-depth interviews that breast cancer has been, or could be, subject to disease mongering.

The treatment for depression/bipolar portrayed in the coverage was predominantly pharmaceutical drugs presented in a positive life-changing way, while treatment for breast cancer was presented in a negative way. This does reflect critics’ assertions that conditions with a saleable drug product are more likely to have treatment presented in a positive way. There is now the “presence of and accessibility to, more inexpensive and effective medications [to treat depression].” While there are a plethora of complimentary/over the counter and, to a lesser degree, prescription therapies available to treat obesity, the efficacy of the former is questionable. Prescription drugs for obesity have been associated with unpleasant and sometimes dangerous side effects, and are only recommended following a trial period of lifestyle modifications for those with a BMI $\geq 30\text{kg/m}^2$ or BMI $\geq 27\text{kg/m}^2$ for those who also have other obesity-related risk factors.

New prescription drugs to treat obesity are expected and as they become approved they may be more commonly prescribed. If this occurs, it will be interesting to see if the portrayal of obesity in the media shifts to a more medical frame as was the case with depression.

6 Limitations

This study was qualitative in nature. While all possible care was taken to ensure that the interpretation of the data was as rigorous as possible (see methods), it is possible that other analysts could draw different conclusions from the data collected.
Chapter 5 presents the results of a community survey that investigates consumers’ medicine related behaviours and attitudes and explores consumer responses to information about conditions and treatments in the media.
Chapter 4: Consumer Survey

Chapter outline

This chapter describes a cross-sectional survey conducted in the Newcastle/Hunter community of NSW to investigate how consumers interact with the media reports of conditions and treatments and explore its impact on their prescription medicine related behaviours. The survey also explored consumers’ attitudes towards: medicine use, the pharmaceutical industry, the industry-doctor relationship and drug promotion to consumers.

Chapter 4: CATI Survey – Key Points

- Discourses in the debate about drug promotion construct consumers quite differently.
- The survey results show that exposure to information about medical conditions and associated treatments in the broadcast and print media often prompts consumers to seek more information, predominantly on the internet.
- Respondents showed a generally permissive attitude toward drug promotion and doctor-industry research collaboration. However, they also displayed a degree of awareness of the problems of drug promotion and the potential for diseases to be exaggerated.
- The survey data suggested a degree of ambivalence about pharmaceuticals and recognition of the potency of promotion.
1 Introduction

The review of the literature and the interview study revealed that the discourses in the debate about drug promotion construct consumers quite differently. Among those who support drug promotion, consumers are rational and capable; among critics of drug promotion, consumers appear as susceptible and credulous. A central feature in the drug promotion debate is the nature of the interaction between the media and consumers. In the arguments against drug promotion, (susceptible) consumer reliance on the media for medicine related information is considered problematic because of doubts about accuracy, balance and the influence of undeclared conflicts of interest.\textsuperscript{68}

Consumers receive medicines information from a wide array of sources, including health professionals, lay ‘experts’, governments, patient organisations, and drug manufacturers. These provide information, advice and promotion, in various ways, through inter-personal communication, consumer medicines information, media reports, and internet web-sites.\textsuperscript{222} Although it is generally acknowledged that the media can usefully raise awareness about a medicine or its associated condition, there is long-standing concern over inaccurate and sensational reporting and the presence of biased drug promotion in the media.\textsuperscript{97, 114, 206} Assuming people vary in their capacity to critically appraise information about prescription medicines, poor reporting and promotional spin may misinform consumers about the risks of a condition and the benefits of treatment.\textsuperscript{73, 171} If misinformed, consumers may have heightened concern and/or expectations, which may in turn lengthen and complicate medical consultations, generate inappropriate requests for treatment and possibly result in ‘sub-optimal’ medicines use with unnecessary costs and avoidable adverse effects.\textsuperscript{73, 161} These concerns have been compounded by the rising popularity of the web and more recently the rise of social media such as Facebook, YouTube and Twitter.\textsuperscript{223-225}
Although concern about the role of the media in informing people about medicines and conditions is widespread\(^{[114]}\), there has been little actual study of how consumers interact with the media in learning about medicines. There is little doubt that the media often intends to raise interest in, and action regarding, a condition or treatment. But how common is it for people to respond to news about a condition or treatment by seeking further information? Where do they go? How often do they talk to their doctor? Does consultation with their doctor result in a prescription being given? Answering such questions is important to inform policies that are designed to achieve well informed consumers.\(^{[224]}\)

In this chapter I report on a cross-sectional survey undertaken to better understand how consumers interact with these sources of information. I particularly wanted to explore some of the claims about consumers that contribute to the construction of them as susceptible on one hand and capable on the other. I surveyed a random sample of residents of the Hunter Valley of NSW and asked them about their usual sources of medicine and health information, what happens when they hear or read news about a condition or treatment in the media and what they think about particular aspects of promotion. The survey sought to gain clearer insight into the attitudes and behaviour of consumers.

2 Methods

No previously validated questionnaire that addressed the specific issues of interest was available. It was therefore necessary to develop a new questionnaire. The development of the questionnaire was informed by the literature as well as the results from the in-depth interview and media studies.
2.1 Development and piloting of the survey instrument

Initial drafts of the questionnaire were reviewed by supervisors, colleagues and experienced health survey researchers who evaluated the presentation and face validity of the questionnaire.

A draft questionnaire was administered by telephone with a convenience sample of 20 colleagues who were asked to provide written feedback on the clarity of the questions and the presentation of the questionnaire as a whole. These same individuals then attended a de-briefing session to discuss their responses. Overall reactions to the questionnaire were positive. Minor changes to individual questions and structure of the instrument were made as a result of the pre-pilot test.

2.1.1 Pilot study

A three stage pilot of 10 interviews per stage was conducted which resulted in minor changes to improve the wording and flow of the instrument. The pilot interviews were conducted with randomly selected respondents from the study sample. The data from these interviews were not used in the analysis. The content of the final questionnaire is presented in Appendix 4.
2.2 The sample

2.2.1 Reference and Source Population

The reference population was defined as residents of the Hunter Region of NSW, Australia. The source population was a random sample of 800 people from the Hunter Region.

The participant group from which the sample was randomly selected, was all people aged 18 and over, living in the Hunter Region of NSW, who were able to complete a telephone survey.

2.2.2 Sampling Procedure

The sample frame was the White Pages and landline telephone numbers were randomly selected from this source.

The numbers selected were based on a RDD (random digit dialling) number generation protocol. The method of selecting RDD numbers was to (a) base the initial section procedure on the Electronic White Pages (EWP). This allowed representative sampling of prefixes from the study area. (b) The EWP number has a random digit applied to the last number (e.g. 4969 4566 might become 4969 4561). This prevents the RDD process of straying into telephone numbers which have never been allocated by Telstra. Then (c) these numbers are compared to compiled business number
databases and listed business numbers are removed. The resulting dataset is the RDD sample that was placed into the field.

When a household was contacted, the number of eligible people was identified and, from this group, one person was selected as the participant. Random selection was used during the extraction of phone numbers from the white pages and, in each household, choosing “the participant” out of all eligible people. It was prohibited to substitute the selected participant with another household member.

2.2.3 Sample size calculations

The sample was stratified to provide 400 completed interviews with females and a further 400 interviews with males. As shown in Table 11, the statistical accuracy for the sample was ± 3.5 per cent for a prevalence of 50 per cent (the most conservative estimate, the even split) at a confidence level of 95 per cent. For example, if 50 per cent of respondents said ‘yes’ to a question that required a yes/no response, the true proportion of people aged 18 or over in the Hunter who would give the same answer (if all were interviewed) would be between 46.5 per cent and 53.5 per cent, 95 times out of 100 (see right hand column of Table 11 50%-50%).
Table 11: Precision estimates for various sample sizes and prevalence levels for a 95% confidence level

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>5%</th>
<th>10%</th>
<th>15%</th>
<th>20%</th>
<th>25%</th>
<th>30%</th>
<th>35%</th>
<th>40%</th>
<th>45%</th>
<th>50%</th>
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</thead>
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<td>100</td>
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<td>9.8</td>
<td>9.9</td>
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<td>5.0</td>
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<td>6.9</td>
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<td>300</td>
<td>2.5</td>
<td>3.5</td>
<td>4.1</td>
<td>4.6</td>
<td>5.0</td>
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<tr>
<td>400</td>
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<td>4.9</td>
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<td>5.0</td>
</tr>
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<td>3.2</td>
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<td>3.3</td>
<td>3.5</td>
<td>3.7</td>
<td>3.9</td>
<td>4.0</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
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<td>1.5</td>
<td>2.1</td>
<td>2.5</td>
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<td>1.9</td>
<td>2.3</td>
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<td>2.9</td>
<td>3.0</td>
<td>3.1</td>
<td>3.1</td>
<td>3.2</td>
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<td>1500</td>
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<tr>
<td>2000</td>
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<td>1.8</td>
<td>1.9</td>
<td>2.0</td>
<td>2.1</td>
<td>2.2</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>3000</td>
<td>0.8</td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.6</td>
<td>1.7</td>
<td>1.7</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
</tbody>
</table>

2.2.4 The respondent

The respondent was a person who had been randomly selected from the study population, lived in the household and was aged 18 years or older. Because the survey was only conducted in English, respondents who could not complete the survey in English were coded as ineligible.

2.2.5 Random respondent selection

When more than one person in the household was aged 18 years or older, the Computer Assisted Telephone Interviewing (CATI) program randomly selected a respondent. This technique is designed to reduce volunteer bias when selecting from a household with more than one eligible respondent.

Throughout the random respondent selection process, the CATI system prompted the interviewer to ask the person who answered the telephone for (1) the number of people living in the household that were aged 18 years or over (this number was used to
randomly select one person to be the respondent), and (2) the age of the person answering the telephone, relative to that of other householders so that it was impossible for those answering the call to misrepresent themselves as the selected respondent (i.e. youngest, second oldest, etc…).

Using this information, the CATI system then randomly selected a respondent from the list of eligible householders, using a randomly generated number, which specified age position in that household (the Nth oldest person in the household, where the number of eligible householders determined N, the number of people in the household). Therefore, each eligible household member would have an equal chance of being selected. Hence, if there were three eligible people and one of them answered the telephone, the person answering the telephone would have a one in three chance of being the respondent. The other eligible people would also have a one in three chance of being selected.

Once identified, the respondent would not be substituted by another member of the household. That is, if the person who answered the telephone happened to be the randomly selected person, the CATI would prompt the interviewer to complete the interview with that person. If not, the CATI would prompt the interviewer to ask for the randomly selected householder to become the respondent.

2.3 Conducting the interviews

The CATI used standardised all introduction scripts and wording for all questions and response options. Interviewers, directed the survey interview asking all relevant major questions and scheduling skips and branching to questions and prompts at appropriate
points in the interview. A total of 20 interviewers were trained and worked on the project. All interviewers had CATI interviewing experience, particularly with community and population health surveys.

A training session was held with CATI interviewers prior to the commencement of data collection. An overview of interviewer training is provided in Appendix 5.

2.3.1 Confidentiality

Steps to ensure participants’ answers remain confidential were:

- All data provided for this study were de-identified before they were used.
- All collected interview data were kept separate from information that could be used to identify individuals. All data were kept in password protected files. Although an ID number could be used to link the two datasets, only the researcher had access to both passwords.
- All collected data were kept electronically in a secure computer system (i.e., password protected and encrypted). Backup copies of the data were maintained in case of system failure, fire, etc.
- The collected data contain information on attitudes and perceptions and are not considered to be highly sensitive. Personal information is limited to demographic data.
- Analysis of the collected data is based on the amalgamation of responses from participants.
2.4 Data Analysis

2.4.1 Weighting

All data was weighted to reflect the household size, age and gender distribution of the Hunter Region population based on the 2006 Census of Population and Housing.\[226\]

All data were de-identified and weighted to reflect:

- The number of people living in the household and eligible for interview. This procedure ensured that the opinions of people living in larger households were given the same weight as those living in smaller households.

- The age and sex distribution of the population aged 18 and over living in the survey area, determined from the 2006 Census of Population Housing. This procedure ensured that the weighted sample was representative of the age and sex distribution of the survey population.

Cell counts may vary slightly due to weighting, i.e., cell factors were rounded when converted to integers then summed to create row and column totals. This may have resulted in some minor variations in row and column totals.

2.4.2 Analyses

Descriptive statistics were used to summarise the data on reported behaviours and attitudes. Further analysis centred on exploring differences in reported behaviours and attitudes (dependent) by demographic variables (independent).

The dependent variables included:

- Where people learn about conditions and treatments and what information they recall about them.
- Consumers’ health and prescription medicine related behaviours.
- Consumers’ attitudes towards; medicine use, DTCA, the pharmaceutical industry generally as well as its interactions with the medical profession.

The independent variables used in the analysis were: age, gender, educational achievement, employment status and self-assessed health. Age was chosen as a variable as younger respondents are likely to be healthier while older respondents are likelier to have more experience with various health conditions and pharmaceutical use. Sex was chosen as a variable as women are more likely to be involved in health related decisions. Self-assessed health status was chosen as those with poorer health are more likely to have greater involvement with the medical profession and have a higher likelihood of being exposed to pharmaceutical products. The variables educational achievement and employment status were chosen to investigate if higher levels of education and engagement in the labour forces result in higher levels of critical awareness about issues surrounding conditions, treatments and promotion.

The data were analysed using SPSS (Version 13) statistical software. Univariate analyses included the calculation of response frequencies and proportions with their 95% Confidence intervals. Bivariate analyses included Chi-Square analysis and Odds Ratios. Associations were determined to be statistically significant at p< 0.05. Where the Chi Square test showed a significant association, Odds Ratios and 95% confidence intervals were calculated.

For the calculation of the Odds Ratio Likert scale responses combining strongly agree and agree responses to one group (Agree) and strongly disagree, disagree, neither agree nor disagree to the second group (Disagree) were constructed. The Age
variable was dichotomised to *Older* (50+) and *Younger* (18-49) and the health status
variable was dichotomised into *Poor/fair* and *Good/very good/excellent*. The Education
variable was dichotomised into *Secondary schooling only* and *Post school qualification*
and the Employment variable was dichotomised to *Paid full-time/part-time employment*
and *Not in labour force*.

In this thesis reference to a ‘significant association’ indicates the association is
statistically significant.

### 2.4.2.1 Open-Ended Questions

The open-ended questions sought descriptive data requiring minimal interpretation;
responses were categorised by a single analyst (the author). Categorised responses
are presented as the percentage of respondents nominating each category
(respondents could provide more than one answer to a question therefore the number
of responses may exceed 100%).

### 2.4.3 Presentation of rounded figures in tables

The totals in some of the tables presented may not add up to 100 per cent if added on
a calculator due to rounding that occurs when copying SPSS tables into Excel and
reducing the decimal place. See example below:

The table below is an example of output for one of the tables from SPSS that is used in
this chapter.
<table>
<thead>
<tr>
<th>Q30A Why do you think it is appropriate that doctors and the pharmaceutical industry conduct research together?</th>
<th>Stats</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their different skills are beneficial together/learn from each other</td>
<td></td>
<td>386</td>
<td>54.8%</td>
</tr>
<tr>
<td>Feedback from doctors to industry means better research</td>
<td></td>
<td>186</td>
<td>26.4%</td>
</tr>
<tr>
<td>Doctors need to know how the drugs work</td>
<td></td>
<td>65</td>
<td>9.3%</td>
</tr>
<tr>
<td>As long as it is unbiased</td>
<td></td>
<td>22</td>
<td>3.1%</td>
</tr>
<tr>
<td>Gov't doesn't provide enough funding for research</td>
<td></td>
<td>7</td>
<td>1.1%</td>
</tr>
<tr>
<td>Doctors can't do it on their own/need industry resources</td>
<td></td>
<td>6</td>
<td>.9%</td>
</tr>
<tr>
<td>Don't know</td>
<td></td>
<td>4</td>
<td>.6%</td>
</tr>
<tr>
<td>Can lead to more accountability</td>
<td></td>
<td>28</td>
<td>4.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>704</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

When the output is then copied and pasted into Excel it puts in all the decimal places that aren’t visible in the SPSS output.

<table>
<thead>
<tr>
<th>Q30A Why do you think it is appropriate that doctors and the pharmaceutical industry conduct research together?</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their different skills are beneficial together/learn from each other</td>
<td>386.201399</td>
<td>54.8329277</td>
</tr>
<tr>
<td>Feedback from doctors to industry means better research</td>
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<tr>
<td>Doctors need to know how the drugs work</td>
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<td>9.25827183</td>
</tr>
<tr>
<td>As long as it is unbiased</td>
<td>21.5554170</td>
<td>3.06044107</td>
</tr>
<tr>
<td>Gov't doesn't provide enough funding for research</td>
<td>7.48777867</td>
<td>1.06311584</td>
</tr>
<tr>
<td>Doctors can't do it on their own/need industry resources</td>
<td>6.35318682</td>
<td>0.90202633</td>
</tr>
<tr>
<td>Don't know</td>
<td>3.94827857</td>
<td>0.56057713</td>
</tr>
<tr>
<td>Can lead to more accountability</td>
<td>27.9299227</td>
<td>3.96549426</td>
</tr>
<tr>
<td>TOTAL</td>
<td>704.323870</td>
<td>100.000000</td>
</tr>
</tbody>
</table>

When the decimal places are reduced to one in Excel you get the same figures as the SPSS output, i.e., if you sum the figures in the per cent column in Excel you get 100%,
however, if you add them up on a calculator you get 100.2% because the calculator doesn’t take into account the rounding up from the multiple decimal places.

<table>
<thead>
<tr>
<th>Q30A Why do you think it is appropriate that doctors and the pharmaceutical industry conduct research together?</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their different skills are beneficial together/learn from each other</td>
<td>386</td>
<td>54.8</td>
</tr>
<tr>
<td>Feedback from doctors to industry means better research</td>
<td>186</td>
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</tr>
<tr>
<td>Doctors need to know how the drugs work</td>
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<td>9.3</td>
</tr>
<tr>
<td>As long as it is unbiased</td>
<td>22</td>
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<td>Doctors can't do it on their own/need industry resources</td>
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<td>Don't know</td>
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<td>Can lead to more accountability</td>
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<td>4.0</td>
</tr>
<tr>
<td></td>
<td>704</td>
<td>100.0</td>
</tr>
</tbody>
</table>

2.5 Ethics approval

The study was approved by the University of Newcastle Human Research Ethics Committee.

Informed verbal consent was obtained by all participants in the telephone survey. The introduction to the survey described the study and asked for verbal consent to proceed with the survey, which was recorded in the response rate database. CATI programming and quality control processes ensured that interviewers could not skip introductory survey statements that provide information to participants and seek consent. Interviewers must enter participant responses into the CATI system and these responses are then used to navigate the multiple pathways of introductory scripts.
Obtaining written consent for randomly selected samples for telephone interviewing is problematic. Sending a letter/consent form is not necessarily an effective means of informing potential participants about the study or of an impending phone call. The use of introduction letters to inform the household of an impending telephone call has limited reach. First, at least 10 per cent of letters posted to white pages addresses are returned to sender. Second, of the letters that arrive at the household, the letter is often read by one person (who may or may not be the chosen participant) and then discarded without the contents being communicated to other people in the household. Therefore, the potentially randomly selected household member would have no opportunity to return a consent form.

A letter was available to be sent to any phone answer or participant who asked for more information or appeared apprehensive about the survey. No participants asked for a letter to be sent.

This process conforms to The National Statement on Ethical Conduct in Research Involving Humans. The requirements are: first, the potential participant must be provided information about the study so that their consent is informed and, second, the provision of consent must be voluntary. The methods employed for telephone data collection in this study meet the Statement’s requirements because consent was informed and voluntary.

The Human Research Ethics Committee of the University of Newcastle approved this consent procedure.
2.6 Content of the Questionnaire

The questionnaire contained several distinct exercises designed to explore consumers' behaviours and attitudes.

Respondents were asked: where and what they heard about conditions and treatments in the media followed by their subsequent medicine related behaviours; their attitudes towards industry in general as well as its promotional activities towards doctors; their preferences for decision making in the doctor/patient relationship and their attitudes towards medications. By answering these questions a picture can emerge of the consumer that can indicate their engagement, responsibility, susceptibility or vulnerability related to their medicine related behaviours.

3 Results

All data were collected between August and September 2010. The average interview length was 25 minutes.

3.1 Response

We surveyed a random sample of 800 residents of the Hunter region (412 female and 388 male), at a response rate of 69.7% (the proportion of people successfully contacted who agreed to participate; for breakdown of response rate calculations see Appendix 6).
3.2 Respondent Characteristics

Table 12 summarises the characteristics of respondents. The sample is weighted to the population of the Hunter according to the Australian Bureau of Statistics estimates and is therefore representative of the Hunter population. Australian Census data shows the population of the Hunter to be broadly similar to the Australia population.\textsuperscript{[226]}

Table 12: Respondent characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Hunter Sample N=800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>388 (48.5%)</td>
</tr>
<tr>
<td>Female</td>
<td>412 (51.5%)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Younger 18-49 years</td>
<td>437 (54.6%)</td>
</tr>
<tr>
<td>Older 50+ years</td>
<td>373 (45.4%)</td>
</tr>
<tr>
<td>Educational achievement</td>
<td></td>
</tr>
<tr>
<td>Secondary only</td>
<td>549 (68.6%)</td>
</tr>
<tr>
<td>Tertiary</td>
<td>251 (31.4%)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Paid full-time/part time employment</td>
<td>456 (57%)</td>
</tr>
<tr>
<td>Not in labour force</td>
<td>344 (43%)</td>
</tr>
<tr>
<td>Self-Rated Health</td>
<td></td>
</tr>
<tr>
<td>Poor/ Fair</td>
<td>129 (16.1%)</td>
</tr>
<tr>
<td>Good, Very Good, Excellent</td>
<td>671 (83.9%)</td>
</tr>
</tbody>
</table>

3.1 Learning about conditions and treatments

3.1.1 Where do respondents usually seek information about a condition?

Respondents were asked the open-ended question – where would you usually gain information about a medical condition? Table 13 lists the nominated sources, the four most frequently cited were doctors (650, 81.3%) the internet (338, 42.2%) the media (112, 14%) and family or friends (94, 11.8%). Smaller proportions of respondents reported a range of other sources of information.
Table 13: Usual sources of information about a condition

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>%</th>
<th>Source</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>650</td>
<td>81.3</td>
<td>Journal articles</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Internet</td>
<td>338</td>
<td>42.2</td>
<td>Print advertisement</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Family members or Friends</td>
<td>94</td>
<td>11.8</td>
<td>News story on Radio</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>News story on television</td>
<td>54</td>
<td>6.8</td>
<td>Ads on tv/radio</td>
<td>8</td>
<td>0.9</td>
</tr>
<tr>
<td>Chemist/pharmacist</td>
<td>51</td>
<td>6.4</td>
<td>Outdoor advertising (billboards)</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>Print news story (newspaper,</td>
<td>50</td>
<td>6.3</td>
<td>Disease focussed organisation</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>magazine)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books</td>
<td>32</td>
<td>4.0</td>
<td>Medical brochures/posters</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Respondent health professional</td>
<td>16</td>
<td>2.1</td>
<td>Don't Know</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>Allied health professional</td>
<td>15</td>
<td>1.8</td>
<td>Other</td>
<td>5</td>
<td>0.7</td>
</tr>
</tbody>
</table>

3.1.2 Where do respondents usually seek information about a treatment?

Also using an open-ended question, respondents were asked – ‘where would you usually gain information about a treatment?’ Table 14 shows the responses. The majority reported their doctor (678, 84.8%) followed by the internet (260, 32.6%) and pharmacist (98, 12.2%) with smaller proportions reporting the use of other sources of information.

Table 14: Where would you usually gain information about a treatment?

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>%</th>
<th>Source</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>678</td>
<td>84.8</td>
<td>Print advertisement</td>
<td>10</td>
<td>1.3</td>
</tr>
<tr>
<td>Internet</td>
<td>260</td>
<td>32.6</td>
<td>Respondent health</td>
<td>10</td>
<td>1.3</td>
</tr>
<tr>
<td>Chemist/pharmacist</td>
<td>98</td>
<td>12.2</td>
<td>Allied health</td>
<td>9</td>
<td>1.1</td>
</tr>
<tr>
<td>Family members or Friends</td>
<td>51</td>
<td>6.3</td>
<td>News story on Radio</td>
<td>5</td>
<td>0.6</td>
</tr>
<tr>
<td>Print news story (newspaper, magazine)</td>
<td>43</td>
<td>5.3</td>
<td>Medical brochures/posters</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>News story on television</td>
<td>31</td>
<td>3.9</td>
<td>Ads on tv/radio</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>Books</td>
<td>24</td>
<td>3</td>
<td>Disease focussed organisation</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Journal articles</td>
<td>13</td>
<td>1.6</td>
<td>Other</td>
<td>2</td>
<td>0.3</td>
</tr>
</tbody>
</table>
3.1.3 Hearing about conditions and treatments in the media

Respondents were asked if they had heard about any medical conditions in the media over the previous 12 months. Around two-thirds of survey participants (551, 68.8%) recalled hearing about one or more medical conditions in the media over the past 12 months. Men (63.3%) were less likely than women (31.2%) to recall hearing about a condition (OR 0.61, 95% CI 0.45, 0.82), i.e., more men than women stated that they did not recall hearing about a condition. The particular media sources are listed in Table 15. The five most commonly recalled sources were television news (414, 75.1%), followed by print media (223, 40.1%), various forms of advertising (134, 24.3%), radio news (83, 15%) and the internet (45, 8.2%).

Table 15: Where did you hear about these conditions?

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>%</th>
<th>Source</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>News story on television</td>
<td>414</td>
<td>75.1</td>
<td>Outdoor advertising</td>
<td>8</td>
<td>1.5</td>
</tr>
<tr>
<td>Print news story (newspaper, magazine)</td>
<td>223</td>
<td>40.4</td>
<td>Medical brochures/posters</td>
<td>8</td>
<td>1.4</td>
</tr>
<tr>
<td>Ads on tv/radio</td>
<td>99</td>
<td>18.0</td>
<td>Disease focussed organisation</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>News story on Radio</td>
<td>83</td>
<td>15.0</td>
<td>Chemist/pharmacist</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Internet</td>
<td>45</td>
<td>8.2</td>
<td>Respondent health professional</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Family members or Friends</td>
<td>28</td>
<td>5.1</td>
<td>Journal articles</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Print advertisement</td>
<td>27</td>
<td>5.0</td>
<td>Books</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Doctor</td>
<td>18</td>
<td>3.4</td>
<td>Allied health professional</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>3</td>
<td>0.6</td>
</tr>
</tbody>
</table>

The 551 respondents who recalled hearing about conditions were asked – ‘what are the three conditions you can recall hearing most about? Table 16 shows the conditions. The ten most commonly recalled conditions were Cancer (354, 64.3%), diabetes (155, 28.1%), heart disease/stroke (147, 26.7%), obesity (88, 16.0%), swine flu (60, 10.9%), mental illness (including depression, bipolar, anxiety (50, 9.0%), common cold and flu (24, 4.3%), asthma (22, 4.0%) and osteoporosis/fracture (19, 3.5%).
In the majority of instances (968, 88.2%) the conditions respondents were familiar with. Respondents were asked whether they recalled if the condition was described as being ‘new’, (116, 10.6%) of the conditions nominated by respondents were described in the media as new condition and approximately six in ten (647, 59.0%) of the nominated conditions were indicated as being under recognised or under treated.

For each recalled instance of hearing about a condition, respondents were asked to recall whether treatment was also mentioned. A treatment was recalled as being mentioned in around two-thirds (666, 60.7%) of instances.

Table 17 lists the types of treatments recalled. Almost a third (192, 28.8%) of the treatments mentioned regarded a lifestyle change i.e., diet exercise and smoking cessation; a further 128 (19.1%) (n=128) of treatments were prescription medication and 12.2 per cent (n=81) were vaccines. Respondents had heard about more than

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>354</td>
<td>64.3</td>
<td>Bacterial infections</td>
<td>15</td>
<td>2.7</td>
<td>Cholesterol</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>155</td>
<td>28.1</td>
<td>Arthritis</td>
<td>13</td>
<td>2.4</td>
<td>Chicken pox</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>Heart disease/stroke</td>
<td>147</td>
<td>26.7</td>
<td>Eye diseases</td>
<td>13</td>
<td>2.3</td>
<td>Sexual dysfunction</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>Obesity</td>
<td>88</td>
<td>16.0</td>
<td>Viral infections</td>
<td>12</td>
<td>2.2</td>
<td>Coeliac disease</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Swine Flu</td>
<td>60</td>
<td>10.9</td>
<td>Blood pressure/hypertension</td>
<td>9</td>
<td>1.7</td>
<td>Chronic fatigue</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Mental illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>general</td>
<td>50</td>
<td>9.0</td>
<td>Blood disorders</td>
<td>8</td>
<td>1.4</td>
<td>Anorexia</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>common cold and flu</td>
<td>24</td>
<td>4.3</td>
<td>kidney/liver disease not cancer</td>
<td>6</td>
<td>1.1</td>
<td>ADHD</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Asthma</td>
<td>22</td>
<td>4</td>
<td>Lung diseases not cancer</td>
<td>5</td>
<td>0.9</td>
<td>Autism</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Osteoporosis/fracture</td>
<td>19</td>
<td>3.5</td>
<td>Alcohol/drug related</td>
<td>5</td>
<td>0.9</td>
<td>Cystic Fibrosis</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Alzheimers/dementia</td>
<td>17</td>
<td>3</td>
<td>allergies</td>
<td>4</td>
<td>0.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
three quarters (517, 77.5%) of the treatments before being exposed to them in the media in the previous 12 months.

Table 17: What was the treatment mentioned?

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>%</th>
<th>Treatment</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifestyle change</td>
<td>192</td>
<td>28.8</td>
<td>Medical device</td>
<td>23</td>
<td>3.4</td>
</tr>
<tr>
<td>Prescription medication</td>
<td>128</td>
<td>19.1</td>
<td>See your doctor</td>
<td>18</td>
<td>2.7</td>
</tr>
<tr>
<td>Vaccine</td>
<td>81</td>
<td>12.2</td>
<td>Unsure</td>
<td>14</td>
<td>2.2</td>
</tr>
<tr>
<td>Chemo/radio therapy</td>
<td>62</td>
<td>9.3</td>
<td>More research needed</td>
<td>8</td>
<td>1.2</td>
</tr>
<tr>
<td>Monitor condition/screening/testing</td>
<td>56</td>
<td>8.4</td>
<td>Gene therapy</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Surgery</td>
<td>45</td>
<td>6.8</td>
<td>Psychological therapy/counselling</td>
<td>6</td>
<td>0.8</td>
</tr>
<tr>
<td>OTC medication/natural remedy</td>
<td>25</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A total of 236 (29.5%) respondents recalled hearing about a treatment in the media in the previous 12 months when asked the question “can you recall hearing or reading about any OTHER particular treatment in the media over the past 12 months” (i.e., another treatment that they had not previously mentioned in association with a condition they had heard about in the media). Table 18 lists the treatments recalled. The most frequently reported treatments were prescription medication (46, 19.5%), chemo/radio therapy (36, 15.3%), lifestyle change (38, 13.3%) and surgery (28, 12.1%). Just over 30% of respondents (75, 31.7%) could not recall the particular treatment they had heard about.
Table 18: Other treatments heard about in the media

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non specific/can name condition not treatment</td>
<td>75</td>
<td>31.7</td>
</tr>
<tr>
<td>Prescription medication</td>
<td>46</td>
<td>19.3</td>
</tr>
<tr>
<td>Chemo/radio therapy</td>
<td>36</td>
<td>15.3</td>
</tr>
<tr>
<td>Lifestyle change</td>
<td>31</td>
<td>13.3</td>
</tr>
<tr>
<td>Surgery</td>
<td>28</td>
<td>12.1</td>
</tr>
<tr>
<td>Vaccine</td>
<td>20</td>
<td>8.3</td>
</tr>
<tr>
<td>Monitor condition/screening/testing</td>
<td>16</td>
<td>6.8</td>
</tr>
<tr>
<td>OTC medication/natural remedy</td>
<td>15</td>
<td>6.4</td>
</tr>
<tr>
<td>Gene/stem cell therapy</td>
<td>14</td>
<td>6.0</td>
</tr>
<tr>
<td>Unsure</td>
<td>12</td>
<td>5.2</td>
</tr>
<tr>
<td>Medical device</td>
<td>12</td>
<td>5.1</td>
</tr>
<tr>
<td>Psychological therapy</td>
<td>8</td>
<td>3.3</td>
</tr>
<tr>
<td>More research needed</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>236</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2 Seeking further information

3.2.1 Seeking further information about medical conditions

Respondents were asked “have you ever looked for more information about a medical condition that you had heard about in the media” and if so “where did you look”. Almost 40% of respondents (307, 38.4%) stated that they had. Table 19 lists the reported sources. Those with post-secondary school education were more likely to report seeking further information (40.7% versus 28.4%; OR 1.66, 95%CI 1.21-2.28). The most commonly reported source was the internet (269, 87.4%), followed by books (27, 8.7%) and then a chemist (10, 3.2%). Most of those reporting looking for information about a condition (91.1%) felt that the information they found was helpful.

Table 19: Looked for more information about a condition (307, 38.4%)

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>%</th>
<th>Source</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>269</td>
<td>87.4</td>
<td>Friend/family</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Book</td>
<td>27</td>
<td>8.7</td>
<td>Newspaper</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Chemist</td>
<td>10</td>
<td>3.2</td>
<td>Non specific</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Journal articles</td>
<td>8</td>
<td>2.6</td>
<td>medical brochure/pamphlet</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Doctor</td>
<td>4</td>
<td>1.4</td>
<td>Television</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Magazine</td>
<td>4</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Was the information helpful (% yes)</strong></td>
<td>91.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Respondents were asked if they knew who provided the information they sourced. Table 20 lists the sources identified, more than half of respondents (157, 51.1%) who looked for information felt that they did not know or could not identify the information source. Over one-fifth (68, 22.1%) stated that they thought the information came from a government health department.

Table 20: Information provider – conditions

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t know or could not name</td>
<td>157</td>
<td>51.1</td>
</tr>
<tr>
<td>Government health department</td>
<td>68</td>
<td>22.1</td>
</tr>
<tr>
<td>Disease focussed organisation</td>
<td>17</td>
<td>5.5</td>
</tr>
<tr>
<td>Pharmaceutical company</td>
<td>16</td>
<td>5.2</td>
</tr>
<tr>
<td>Book</td>
<td>12</td>
<td>4.0</td>
</tr>
<tr>
<td>Wikepedia</td>
<td>10</td>
<td>3.4</td>
</tr>
<tr>
<td>Medical journal</td>
<td>7</td>
<td>2.3</td>
</tr>
<tr>
<td>Chemist</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>News web site</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td>Medical association</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Doctor</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Magazine/newspaper</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Friend/family</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Television</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Allied health professional</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>307</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2.2  *Seeking further information about treatments*

Respondents were asked “have you ever looked for more information about a treatment that you had heard about in the media" and if so “where did you look". Approximately one-quarter (205, 25.6 %) of respondents stated that they had looked for further information about a treatment they heard about in the media. Table 21 lists the sources used. Men were less likely than women to have looked for information about a treatment they heard about in the media (21.4% versus 25.6% OR 0.64, 95% CI 0.46, 0.89).
The majority (168, 81.9%) of the respondents looked for information about a treatment on the internet. Almost half of those (98, 47.7%) who looked for information about a treatment indicated that the treatment was a prescription drug. Almost nine in ten respondents (183, 89.2%) felt that the information they found was useful Table 21.

Table 21: Information sources for treatments

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>168</td>
<td>81.9</td>
</tr>
<tr>
<td>Book</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>Chemist</td>
<td>10</td>
<td>4.8</td>
</tr>
<tr>
<td>Journal articles</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>Doctor</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td>Newspaper</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Friend/family</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Non specific</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>Television</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>medical brochure/pamphlet</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Magazine</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>205</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Was treatment a drug</td>
<td>98</td>
<td>47.7</td>
</tr>
<tr>
<td>Was the information helpful</td>
<td>183</td>
<td>89.2</td>
</tr>
</tbody>
</table>

Respondents were asked if they knew who provided the information they sourced. Table 22 lists the providers. Approximately half of respondents (102, 49.6%) who looked for information regarding a treatment either did not know or could not name who provided it. Almost one-fifth of these respondents (37, 18.0%) thought that the information came from a government health department; a further 22 (10.7%) indicated that the information came from a pharmaceutical company.
Table 22: Information provider for treatments

<table>
<thead>
<tr>
<th>Information provider</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know or could not name</td>
<td>102</td>
<td>49.6</td>
</tr>
<tr>
<td>Government health department</td>
<td>37</td>
<td>18.0</td>
</tr>
<tr>
<td>Pharmaceutical company</td>
<td>22</td>
<td>10.7</td>
</tr>
<tr>
<td>Medical journal</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td>Disease focussed organisation</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Wikepedia</td>
<td>6</td>
<td>3.0</td>
</tr>
<tr>
<td>Doctor</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>Friend/family</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Chemist</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Book</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Allied health professional</td>
<td>3</td>
<td>1.3</td>
</tr>
<tr>
<td>Television</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>News web site</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>205</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2.3  **Response to hearing about a condition**

Respondents were asked *specifically* whether they had asked their doctor about a condition they had heard about in the media. More than a quarter of respondents (215, 26.9%) indicated that they had (Table 23). Those with post-secondary education were more likely to report asking their doctor about a medical condition (29.6% versus 22.2%; OR 1.76, 95% CI 1.23 – 2.52). Around half of those who asked their doctor (109, 50.6%) reported that their inquiry resulted in them receiving treatment; almost half (53, 48.3%) reported being prescribed a medicine. Those with post-school qualifications were more likely to have that inquiry result in receiving treatment (52.3% versus 44.6%; OR 2.03, 95% CI 1.06 – 3.89) and those who were employed were more likely to report that they were prescribed a medicine (55.5% versus 34.8%; OR 2.33, 95% CI 1.03 – 5.28).

Respondents were also asked whether they had ever heard about a condition in media and then worry they may have it. Approximately one-fifth of respondents (150, 18.7%)
reported worry (Table 23). The most common reasons given for concern (not shown in Table 21) were: thought they had the symptoms described (70, 46.5%); the media report claimed that people might be suffering from the condition and not be aware of it (42, 28%); the media report indicated that people similar to the respondent might suffer from the condition (21, 14%) and that there had been a lot of attention given to the condition (13, 8.7%).

Almost 60% (87, 57.8%) of those who were worried reported seeking advice from a doctor about the condition; around 35 (40.5% of 87) reported receiving treatment for the condition (Table 23). Males (57%) were more likely than females (25.9%) to have received treatment for the condition they sought advice for (OR 3.78, 95% CI 1.53 – 9.36).

Table 23: Responses to hearing about a condition

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>% Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asked doctor about condition heard about in media</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did that result in treatment</td>
<td>109</td>
<td>50.6</td>
</tr>
<tr>
<td>Treatment a prescription drug</td>
<td>53</td>
<td>48.3</td>
</tr>
<tr>
<td><strong>Heard about condition in media and then worry you may have it</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you then seek advice from a doctor about it</td>
<td>87</td>
<td>57.8</td>
</tr>
<tr>
<td>Did that result in treatment</td>
<td>35</td>
<td>40.5</td>
</tr>
</tbody>
</table>

3.2.4 Response to hearing about a treatment

Respondents were asked specifically whether they had asked their doctor about a treatment they had heard about in the media. Table 24 shows that almost a quarter of respondents (189, 23.6%) indicated that they had with almost half of this group (85, 44.9%) reporting that this had resulted in them receiving treatment. Of those reporting having received a treatment, over half (49, 58.1%) reported receiving a prescription
medicine. Men (18.5%) were less likely than women (28.4%) to ask their doctor about a treatment (OR 0.58, 95% CI 0.41, 0.80) and those who were employed were less likely to have asked (20.5% versus 28.0%; OR 0.66, 95% CI 0.48 – 0.92).

### Table 24: Response to hearing about a treatment

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asked doctor about treatment heard about in media</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did that result in treatment</td>
<td>85</td>
<td>44.9</td>
</tr>
<tr>
<td>Was that treatment a drug</td>
<td>49</td>
<td>58.1</td>
</tr>
<tr>
<td><strong>Asked doctor about a brand name drug heard about in media</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did that result in doctor prescribing the drug</td>
<td>45</td>
<td>37.9</td>
</tr>
<tr>
<td>Been prescribed a drug you didn’t really need</td>
<td>211</td>
<td>26.4</td>
</tr>
</tbody>
</table>

Respondents were also asked whether they had asked a doctor about a brand name drug they heard about in the media and 120 (15%) reported that they had. Younger respondents were less likely than older respondents (11.1% versus 19.8%; OR 0.506, 95% CI 0.34 – 0.75), those with poor/fair health were more likely than healthier respondents (22.4 versus 13.6%; OR 1.83, 95% CI 1.14 – 2.94) and those who were employed were less likely (11.6% versus 19.6%; OR 0.54, 95% CI 0.37 – 0.80) to have asked a doctor about a brand named drug they had heard about in the media. Of (120, 15.0%) who reported asking about a specific drug over a third (45, 37.9%) were prescribed the drug (Table 24).

Over one-quarter of overall respondents (26.4%) felt that they had been prescribed a medication they didn’t really need (Table 24). Those with poor/fair health were more likely than healthier respondents (36.2% versus 24.8%; OR 1.717, 95% CI 1.15 – 2.56) and those with post-school qualifications were more likely (27.7% versus 18.6%; OR 1.75, 95% CI 1.22 – 2.51) to feel this way.
The results in Table 25 indicate that almost 40% of respondents (298, 37.2%) had been given a drug sample by a doctor at some point. Those in poorer health were significantly more likely than those who assessed their health as good to excellent to have been given a sample by a doctor (47.7% versus 35.3%; OR 1.684, 95%CI 1.15 – 2.47).

Table 25: Ever been given a drug sample by a doctor

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>298</td>
<td>37.2</td>
</tr>
<tr>
<td>No</td>
<td>499</td>
<td>62.4</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

3.3 Medical conditions that need to be addressed in Australia the most

Respondents were asked what conditions they felt needed to be addressed the most in Australia and why. The results in Table 26 indicate that more than three-quarters of respondents (619, 77.4%) felt cancer was the medical condition needed to be addressed the most. Cardiovascular disease (308, 38.5%), obesity (257, 38.5%), diabetes (204, 25.5%) and mental illness (117, 14.6%) were also nominated by relatively high proportions of respondents.
Table 26: Three medical conditions need to be addressed the most

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>619</td>
<td>77.4</td>
<td>Arthritis</td>
<td>19</td>
<td>2.4</td>
<td>Common cold/flu</td>
<td>5</td>
<td>0.6</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>308</td>
<td>38.5</td>
<td>Blood pressure/hypertension</td>
<td>12</td>
<td>1.4</td>
<td>Liver disease</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>Obesity</td>
<td>257</td>
<td>32.1</td>
<td>Arthritis</td>
<td>11</td>
<td>1.4</td>
<td>High cholesterol</td>
<td>3</td>
<td>0.4</td>
</tr>
<tr>
<td>Diabetes</td>
<td>204</td>
<td>25.5</td>
<td>Allergies</td>
<td>10</td>
<td>1.2</td>
<td>Parkinsons disease</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>Mental illness general</td>
<td>117</td>
<td>14.6</td>
<td>Viral infections</td>
<td>9</td>
<td>1.2</td>
<td>AIDS</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Asthma</td>
<td>59</td>
<td>7.4</td>
<td>Kidney disease</td>
<td>8</td>
<td>1.0</td>
<td>Cystic fibrosis</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Depression/bipolar</td>
<td>54</td>
<td>6.7</td>
<td>Bacterial infections</td>
<td>8</td>
<td>1.0</td>
<td>Autism</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Alzheimers/dementia</td>
<td>49</td>
<td>6.1</td>
<td>ADHD</td>
<td>7</td>
<td>0.8</td>
<td>Bird flu</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>Drug/alcohol dependency</td>
<td>34</td>
<td>4.2</td>
<td>Epilepsy</td>
<td>6</td>
<td>0.8</td>
<td>DK</td>
<td>52</td>
<td>6.5</td>
</tr>
<tr>
<td>Lung disease not cancer</td>
<td>27</td>
<td>3.4</td>
<td>Multiple sclerosis</td>
<td>5</td>
<td>0.7</td>
<td>Misc</td>
<td>61</td>
<td>7.6</td>
</tr>
<tr>
<td>Eye conditions</td>
<td>20</td>
<td>2.5</td>
<td>Osteoporosis/fracture</td>
<td>5</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 27, when asked why these conditions need to be addressed, approximately one-fifth of responses (402, 20.7%) were that it affects many people, and 16.5 per cent (n=320) indicated that the respondent (or a friend or family member) has the condition.

Table 27: Why these conditions?

<table>
<thead>
<tr>
<th>Reason</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affects many people</td>
<td>402</td>
<td>20.7</td>
</tr>
<tr>
<td>Friend/family member/resp has condition</td>
<td>320</td>
<td>16.5</td>
</tr>
<tr>
<td>Under recognised/diagnosed/tested for</td>
<td>224</td>
<td>11.6</td>
</tr>
<tr>
<td>More and more people have it</td>
<td>217</td>
<td>11.2</td>
</tr>
<tr>
<td>Because of our climate/lifestyle</td>
<td>200</td>
<td>10.3</td>
</tr>
<tr>
<td>Very serious/debilitating condition</td>
<td>183</td>
<td>9.4</td>
</tr>
<tr>
<td>No cure/more research/info needed</td>
<td>171</td>
<td>8.8</td>
</tr>
<tr>
<td>Can lead to other health issues</td>
<td>126</td>
<td>6.5</td>
</tr>
<tr>
<td>Costs/burden to health system</td>
<td>44</td>
<td>2.3</td>
</tr>
<tr>
<td>Hear so much about it</td>
<td>35</td>
<td>1.8</td>
</tr>
<tr>
<td>Don't know</td>
<td>20</td>
<td>1.0</td>
</tr>
<tr>
<td>Total responses</td>
<td>1942</td>
<td>100</td>
</tr>
<tr>
<td>Total cases</td>
<td>770</td>
<td>40</td>
</tr>
</tbody>
</table>
3.4 Trustworthiness media information

3.4.1 Trust in selected information providers

The results in Table 28 indicate that respondents generally agreed that they trust information from a government health department (594, 74.3%) and a disease focussed organisation (711, 88.9%). Older respondents were less likely than younger respondents (68.6% versus 79.2%; OR 0.58, 95% CI 0.42 – 0.79) and those without post-school qualifications were less likely (61.0% versus 74.7%; OR 0.65, 95% CI 0.47 – 0.91) to feel that information from a government health department was trustworthy. However, the results indicate that, on balance, respondents do not agree that they trust information from a pharmaceutical company (256, 50.6%). Those without post-school qualifications were more likely to trust information from a pharmaceutical company (35.5% versus 27.7%; OR 1.63, 95% CI 1.19 – 2.23).

Table 28: Level of trust in various sources

<table>
<thead>
<tr>
<th>Trust…</th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gov't health dep't</td>
<td>594 (74.3)</td>
<td>60 (7.5)</td>
<td>104 (13.0)</td>
<td>41 (5.2)</td>
</tr>
<tr>
<td>Disease focussed organisation</td>
<td>711 (88.9)</td>
<td>33 (4.1)</td>
<td>40 (5.0)</td>
<td>16 (2.1)</td>
</tr>
<tr>
<td>Pharmaceutical company</td>
<td>256 (32.1)</td>
<td>108 (13.5)</td>
<td>405 (50.6)</td>
<td>31 (3.9)</td>
</tr>
</tbody>
</table>

3.4.2 Disease exaggeration in the media

Respondents were presented with a series of conditions and asked if they felt they had been exaggerated in the media. These results are presented in Table 29. Almost four in ten respondents (310, 39.0%) disagreed that restless leg syndrome has been exaggerated in the media; however, almost half of respondents (388, 48.5%) stated that they did not know if it had been, which could indicate a lack of awareness of the condition. More than eight in ten respondents disagreed that osteoporosis (651,
81.4%), breast cancer (679, 84.9%) and HIV or AIDS (644, 80.5%) had been exaggerated; more than three-quarters of respondents (615, 76.9%) disagreed that depression had been exaggerated. More than half of respondents agreed that sexual dysfunction (430, 53.6%) and ADHD (458, 57.2%) had been exaggerated in the media.

Table 29: Certain conditions exaggerated in the media?

<table>
<thead>
<tr>
<th>Been exaggerated..</th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restless leg syndrome</td>
<td>67 (9.0)</td>
<td>34 (4.0)</td>
<td>310 (39.0)</td>
<td>388 (48.5)</td>
</tr>
<tr>
<td>Sexual dysfunction</td>
<td>430 (53.6)</td>
<td>45 (5.6)</td>
<td>228 (28.6)</td>
<td>97 (12.1)</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>89 (11.1)</td>
<td>27 (3.4)</td>
<td>651 (81.4)</td>
<td>32 (3.9)</td>
</tr>
<tr>
<td>ADHD</td>
<td>458 (57.2)</td>
<td>20 (2.5)</td>
<td>258 (32.4)</td>
<td>63 (8.0)</td>
</tr>
<tr>
<td>Depression</td>
<td>140 (17.6)</td>
<td>25 (3.1)</td>
<td>615 (76.9)</td>
<td>20 (2.5)</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>94 (11.7)</td>
<td>17 (2.2)</td>
<td>679 (84.9)</td>
<td>10 (1.2)</td>
</tr>
<tr>
<td>HIV or AIDS</td>
<td>95 (11.9)</td>
<td>24 (3.1)</td>
<td>644 (80.5)</td>
<td>36 (4.6)</td>
</tr>
</tbody>
</table>

There was an association with the variables age and health status with the belief that sexual dysfunction had been exaggerated in the media. Older respondents were less likely than younger respondents (48.6% versus 57.9%) to believe that sexual dysfunction has been exaggerated (OR 0.690, 95% CI 0.52 – 0.91), while those who self-assessed their health status as good to excellent, were more likely than less healthy respondents (55.3% versus 45.4%) to believe this is the case (OR 1.487, 95% CI 1.02 – 2.17). Older respondents were less likely than younger respondents (50.9% versus 62.5%) to believe ADHD is exaggerated in the media (OR 0.620, 95% CI 0.47 – 0.82).

As indicated by the information in Table 30, more than eight in ten respondents (691, 86.4%) could not identify a condition other than the ones previously presented to them that they thought had been exaggerated in the media. Swine flu was identified by 4.0 per cent of all respondents (n=32) as one they felt had been exaggerated in the media.
### Table 30: medical condition not listed been exaggerated?

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>691</td>
<td>86.4</td>
<td>Swine flu</td>
<td>32</td>
<td>4.0</td>
</tr>
<tr>
<td>Irritable bowel syndrome</td>
<td>2</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc/non specific</td>
<td>12</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>10</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>1</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hair loss</td>
<td>8</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>6</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic fatigue syndrome</td>
<td>1</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental illness general</td>
<td>5</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foot fungus</td>
<td>1</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcoholism/drug addiction</td>
<td>3</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High cholesterol</td>
<td>1</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common cold and flu</td>
<td>3</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infertility</td>
<td>1</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td>3</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitamin use</td>
<td>1</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular conditions</td>
<td>2</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>0</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye conditions</td>
<td>2</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>13</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 3.4.3 Conditions under/over treated in Australia?

Respondents were asked if they had the perception that there were medical conditions that were under treated, or over treated in Australia. Just over half of respondents (412, 51.5%) felt that there are medical conditions in Australia that are under treated. Table 31 lists these conditions. Mental illness was thought to be under treated by almost four in ten (183, 44.4%) of these respondents and cancer was thought to be under treated by almost one-fifth (88, 21.5%) with smaller proportions nominating other conditions.
Table 31: Which medical conditions under treated?

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental illness (incl. depression)</td>
<td>183</td>
<td>44.4</td>
<td>Autism</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Cancer</td>
<td>88</td>
<td>21.5</td>
<td>Common cold/flu</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>Misc/non specific</td>
<td>80</td>
<td>19.5</td>
<td>Hearing issues</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Obesity</td>
<td>50</td>
<td>12.2</td>
<td>Aging population issues</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Dental conditions</td>
<td>22</td>
<td>5.4</td>
<td>Allergies</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Cardiovascular conditions</td>
<td>22</td>
<td>5.2</td>
<td>Skin conditions</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Diabetes</td>
<td>21</td>
<td>5.1</td>
<td>Parkinsons disease</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Alzheimers/dementia</td>
<td>16</td>
<td>3.9</td>
<td>Osteoporosis</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Alcohol/drug related conditions</td>
<td>16</td>
<td>3.9</td>
<td>Back pain</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>11</td>
<td>2.8</td>
<td>Kidney/liver disease</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Asthma</td>
<td>11</td>
<td>2.8</td>
<td>ADHD</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Blood pressure/hypertension</td>
<td>10</td>
<td>2.4</td>
<td>Chronic Fatigue Syndrome</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Lung conditions not cancer</td>
<td>9</td>
<td>2.3</td>
<td>Coeliac disease</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>9</td>
<td>2.3</td>
<td>Crohns disease</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>8</td>
<td>2</td>
<td>Eating disorders</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Arthritis</td>
<td>8</td>
<td>1.9</td>
<td>Blood disorders</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Eye conditions</td>
<td>7</td>
<td>1.7</td>
<td>Brain injuries</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Indigenous/under privileged health issues</td>
<td>5</td>
<td>1.3</td>
<td>Vaccinations</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>HIV/AIDS/STDs</td>
<td>5</td>
<td>1.3</td>
<td>Don't know</td>
<td>12</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>411</strong></td>
<td><strong>100</strong></td>
<td><strong>Total</strong></td>
<td><strong>411</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Respondents were also asked if they thought there were medical conditions in Australia that are over treated, three in ten respondents (240, 30.0%) did so and those with post-school qualifications were more likely to believe that is the case (37.9% versus 19.7%; OR 2.71, 95% CI 1.85 – 3.97). Of those respondents who did believe that there have been conditions that have been over treated, ADHD (72, 29.9%) and common cold and flu (61, 25.6%) were the two most cited conditions (Table 32).
### Table 32: Which conditions are over treated?

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>%</th>
<th>Condition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>72</td>
<td>29.9</td>
<td>Conditions using cosmetic surgery</td>
<td>9</td>
<td>3.6</td>
</tr>
<tr>
<td>Common cold and flu</td>
<td>61</td>
<td>25.6</td>
<td>Cardiovascular conditions</td>
<td>8</td>
<td>3.2</td>
</tr>
<tr>
<td>Misc/non specific</td>
<td>44</td>
<td>18.2</td>
<td>smoking related</td>
<td>7</td>
<td>3.0</td>
</tr>
<tr>
<td>Depression/bipolar</td>
<td>19</td>
<td>7.7</td>
<td>Alcohol/drug related</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>Cancer</td>
<td>14</td>
<td>6.0</td>
<td>High cholesterol</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Mental illness general</td>
<td>12</td>
<td>4.8</td>
<td>Headaches</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Diabetes</td>
<td>12</td>
<td>4.8</td>
<td>Obesity</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Bacterial infections</td>
<td>11</td>
<td>4.7</td>
<td>Allergies</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Blood pressure/hypertension</td>
<td>11</td>
<td>4.4</td>
<td>Blood disorders</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Asthma</td>
<td>9</td>
<td>3.7</td>
<td>Don't know</td>
<td>6</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>240</td>
<td>100</td>
<td><strong>Total</strong></td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>

### 3.5 Attitudes towards taking and discussing medicines

A series of questions were asked to ascertain respondents’ attitudes towards taking and discussing medicines. More than seven in ten respondents agreed that if they have a health issue they will ask their doctor if a medicine will help (607, 76.0%) with those without post-school qualifications more likely to agree that they would ask (82.3% versus 71.2%; OR 1.99, 95% CI 1.36 – 2.92). More than nine in ten respondents (735, 91.9%) agreed that if their doctor says a medicine is necessary they will fill the script and take the medicine (Table 33).

### Table 33: Doctor/patient negotiation

<table>
<thead>
<tr>
<th></th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If your doctor says a medicine is necessary then you're likely to fill the script and take the medicine</td>
<td>735 (91.9)</td>
<td>15 (1.8)</td>
<td>49 (6.0)</td>
<td>1 (0.2)</td>
</tr>
<tr>
<td>If you have a health issue you're likely to ask your doctor if there's a medicine that will help</td>
<td>607 (76.0)</td>
<td>21 (2.6)</td>
<td>167 (20.9)</td>
<td>4 (0.6)</td>
</tr>
</tbody>
</table>
As shown in Table 34, more than seven in ten respondents (573, 71.6%) agreed that they would rather not use a medicine if other forms of treatment are available. Those without post-school qualifications were less likely to agree that they would prefer not to use a medicine if there was another treatment (66.6% versus 72.7%; OR 0.56, 95%CI 0.41 – 0.77).

Table 34: Treatment preference

<table>
<thead>
<tr>
<th>You'd rather not use a medicine if other forms of treatment are available</th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>573 (71.6)</td>
<td>52 (6.5)</td>
<td>161 (20.0)</td>
<td>15 (1.8)</td>
</tr>
</tbody>
</table>

Respondents were then asked their level of agreement with possible courses of action if a doctor suggests they use a medicine. These results are presented in Table 35. Almost three-quarters of respondents (589, 73.7%) agreed that they would ask for more information with females more likely than males (80.4% versus 66.6%) to ask (OR 2.052, 95% CI 1.49 – 2.83).

More than six in ten respondents (498, 62.2%) agreed that if a doctor suggests they take a medicine, they would ask if there is an alternative. Females were more likely than males (66.5% versus 57.7%; OR 1.454, 95% CI 1.09 – 1.94), and those with a self-assessed health status as good to excellent were more likely than less healthy respondents (64.5% versus 50.4%) to ask a doctor if there is an alternative (OR 1.787, 95% CI 1.22 – 2.61).

Seven in ten respondents (560, 70.0%) agreed that if a doctor suggests using a medicine they would ask if it is really necessary. Females were more likely to agree than males with the statement (75.1% versus 64.5%; OR 1.657, 95% CI 1.22 – 2.25).
More than eight in ten respondents (657, 82.1%) agreed that they would ask about side effects. Females were more likely than males (86.6% versus 77.3%) to enquire about side effects (OR 1.891, 95% CI 1.31 – 2.74).

Table 35: If a doctor suggests using a medicine you're likely to…

<table>
<thead>
<tr>
<th></th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ask for more information</td>
<td>589 (73.7)</td>
<td>12 (1.5)</td>
<td>197 (24.7)</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>ask if there's an alternative</td>
<td>498 (62.2)</td>
<td>14 (1.8)</td>
<td>284 (35.5)</td>
<td>4 (0.5)</td>
</tr>
<tr>
<td>ask if it is really necessary</td>
<td>560 (70.0)</td>
<td>10 (1.2)</td>
<td>230 (28.8)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>ask about side effects</td>
<td>657 (82.1)</td>
<td>5 (0.7)</td>
<td>137 (17.2)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

The results in Table 36 indicate that the highest proportion of respondents (347, 43.3%) would prefer that they make a decision about their need to take a prescription medicine equally with their doctor. The next most popular choice, nominated by almost one-quarter of respondents (195, 24.4%) was that they would make the decision after seriously considering their doctor’s opinion. Only 1.9 per cent (n=15) of respondents would prefer to make the decision themselves.

Table 36: Preference when deciding to use a medicine

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your doctor and you make the decision equally</td>
<td>347</td>
<td>43.3</td>
</tr>
<tr>
<td>You make the decision after seriously considering your doctor's opinion</td>
<td>195</td>
<td>24.4</td>
</tr>
<tr>
<td>Your doctor makes the decision after seriously considering your opinion</td>
<td>145</td>
<td>18.1</td>
</tr>
<tr>
<td>That your doctor makes the decision alone</td>
<td>98</td>
<td>12.3</td>
</tr>
<tr>
<td>To make the decision yourself</td>
<td>15</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>800</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
3.6 Attitudes towards pharmaceutical industry and drug promotion

3.6.1 Attitudes toward industry

Respondents were asked for the first words that come to mind when they think of the pharmaceutical industry. Table 37 shows the responses, for 224 (27.9%) the first words were ‘drugs/medication’, followed by ‘big business/profits’ (155, 19.3%), Chemist (144, 18.0%) and medicine makers (88, 11.0%).

Table 37: Pharmaceutical company, what words come to mind?

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drugs/medication</td>
<td>224</td>
<td>27.9</td>
</tr>
<tr>
<td>Big business/profits</td>
<td>155</td>
<td>19.3</td>
</tr>
<tr>
<td>Chemist</td>
<td>144</td>
<td>18.0</td>
</tr>
<tr>
<td>Medicine makers</td>
<td>88</td>
<td>11.0</td>
</tr>
<tr>
<td>Brand/company names</td>
<td>71</td>
<td>8.9</td>
</tr>
<tr>
<td>Not trustworthy/corrupt</td>
<td>38</td>
<td>4.7</td>
</tr>
<tr>
<td>Don't know</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Drug pushers</td>
<td>15</td>
<td>1.8</td>
</tr>
<tr>
<td>Help/research for sickness</td>
<td>14</td>
<td>1.8</td>
</tr>
<tr>
<td>Sceptical about them</td>
<td>11</td>
<td>1.4</td>
</tr>
<tr>
<td>Necessary</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>sales reps</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>Reliable</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Charge too much</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

Respondents were asked their level of agreement with a series of statements about the pharmaceutical industry. These results are shown in Table 38. Respondents were polarised in their perception that the pharmaceutical industry’s primary motive is to help people, 46.6 per cent agreed (n=373), whilst 40.9 per cent (n=328) disagreed with the statement. Females were more likely than males (53.6% versus 39.2%; OR 1.797, 95% CI 1.36 – 2.38) and older respondents were more likely than younger respondents (51.4% versus 42.6%; OR 1.426, 95% CI 1.08 – 1.89) to agree that industry’s primary
motive is to help people. Those without post-school qualifications were more likely to agree with this statement (63.1% versus 41.9%; OR 2.35, 95% CI 1.72 – 3.17).

More than three-quarters of respondents (611, 76.4%) agreed that industry’s primary motive is to make profits. Females were significantly less likely than males (70.6% versus 82.5%) to agree (OR 0.510, 95%CI 0.36 – 0.72) and those without post-school qualifications were less likely to agree (71.7% versus 78.6%; OR 0.50 – 0.99) with the statement.

The results were polarised for the statement that industry is honest in the way they promote drugs or health, 35.3 per cent (n=282) of respondents agreed, whilst 43.8 per cent (n=350) disagreed; as well as the statement that claims made by the pharmaceutical industry are trustworthy, 32.2 per cent (n=258) agreed and 43.6 per cent (n=350) disagreed. Those with no post-school qualifications were more likely to agree that industry is honest in the way they promote drugs or health and that claims made by industry are trustworthy (43.0% versus 30.1%; OR 1.82, 95% CI 1.35 – 2.50) and (39.9% versus 27.7%; OR 1.90, 95% CI 1.39 – 2.60), respectively.

More than eight in ten respondents (672, 84.0%) agreed that the work of the pharmaceutical industry has improved the health of the population.
Table 38: Agree or disagree with statements about the pharmaceutical industry

<table>
<thead>
<tr>
<th>Agree or disagree that....</th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>It's primary motive is to help people</td>
<td>373 (46.6)</td>
<td>88 (11.0)</td>
<td>328 (40.9)</td>
<td>12 (1.5)</td>
</tr>
<tr>
<td>It's primary motive is to make profits</td>
<td>611 (76.4)</td>
<td>52 (6.4)</td>
<td>120 (14.9)</td>
<td>18 (2.2)</td>
</tr>
<tr>
<td>It's honest in the way they promote drugs or health</td>
<td>282 (35.3)</td>
<td>123 (15.4)</td>
<td>350 (43.8)</td>
<td>44 (5.5)</td>
</tr>
<tr>
<td>Claims made by industry are trustworthy</td>
<td>258 (32.2)</td>
<td>155 (19.3)</td>
<td>350 (43.6)</td>
<td>38 (4.8)</td>
</tr>
<tr>
<td>The work of industry has improved the health of the population</td>
<td>672 (84.0)</td>
<td>61 (7.6)</td>
<td>52 (6.4)</td>
<td>16 (2.0)</td>
</tr>
</tbody>
</table>

3.7 Industry/doctor interaction

A series of questions were presented to respondents in an attempt to elicit their views on the appropriateness of various aspects of the interaction that occurs between industry and physicians. Respondents were asked whether or not it was appropriate for industry to provide doctors with a range of items. These results are shown in Table 39. If respondents did not think it was appropriate, they were asked why.

Table 39: Appropriate that industry…

<table>
<thead>
<tr>
<th>Appropriate that industry....</th>
<th>N</th>
<th>% Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides doctors with small gifts e.g. pads or pens</td>
<td>456</td>
<td>57.0</td>
</tr>
<tr>
<td>Provides doctors with inexpensive lunch at doctor’s office</td>
<td>265</td>
<td>33.1</td>
</tr>
<tr>
<td>Provides doctors with overseas conference expenses</td>
<td>242</td>
<td>30.2</td>
</tr>
<tr>
<td>Industry and doctors conduct research together</td>
<td>704</td>
<td>88.0</td>
</tr>
<tr>
<td>Provides information on products to doctors</td>
<td>785</td>
<td>98.2</td>
</tr>
</tbody>
</table>

Almost six in ten respondents (456, 57%) thought that it was appropriate for industry to provide doctors with small gifts. As shown in Table 40 the highest proportion of those who did not think it was appropriate (n=344) thought that it was because the doctor may be influenced (103, 12.9%) followed by because they thought it was bribery or unethical (94, 11.8%).
Table 40: Small gifts such as pads or pens

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes appropriate</td>
<td>456</td>
<td>57</td>
</tr>
<tr>
<td><strong>Not appropriate responses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctor may be influenced</td>
<td>103</td>
<td>12.9</td>
</tr>
<tr>
<td>Bribery/unethical</td>
<td>94</td>
<td>11.8</td>
</tr>
<tr>
<td>unnecessary</td>
<td>47</td>
<td>5.9</td>
</tr>
<tr>
<td>It is advertising/promotion</td>
<td>42</td>
<td>5.3</td>
</tr>
<tr>
<td>Conflict of interest</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Industry should be separate from doctors</td>
<td>12</td>
<td>1.5</td>
</tr>
<tr>
<td>Product should speak for itself</td>
<td>5</td>
<td>0.6</td>
</tr>
<tr>
<td>Should be given something more practical</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Cost passed on to consumers</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Refused</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

Almost one-third of respondents (264, 33.1%) felt that it was appropriate for industry to provide inexpensive lunches at a doctor’s office. Table 41 shows the reasons for not thinking it was appropriate.

Table 41: Inexpensive lunch at a doctor’s office

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes appropriate</td>
<td>265</td>
<td>33</td>
</tr>
<tr>
<td><strong>Not appropriate responses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bribery/unethical</td>
<td>221</td>
<td>27.6</td>
</tr>
<tr>
<td>Doctor may be influenced</td>
<td>116</td>
<td>14.5</td>
</tr>
<tr>
<td>Unnecessary</td>
<td>63</td>
<td>7.8</td>
</tr>
<tr>
<td>Doctors too busy</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Industry should be separate from doctors</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>It is advertising/promotion</td>
<td>18</td>
<td>2.3</td>
</tr>
<tr>
<td>Conflict of interest</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Product should speak for itself</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>Cost passed on to consumers</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>44</td>
<td>5.4</td>
</tr>
<tr>
<td>Refused</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

Approximately three in ten respondents (242, 30.2%) thought that it was appropriate for industry to provide doctors with overseas conference expenses.
Table 42 shows the reasons for not thinking it was appropriate.

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes appropriate</td>
<td>242</td>
<td>30.2</td>
</tr>
<tr>
<td>Not appropriate responses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnecessary</td>
<td>181</td>
<td>22.6</td>
</tr>
<tr>
<td>Doctor may be influenced</td>
<td>124</td>
<td>15.5</td>
</tr>
<tr>
<td>Bribery/unethical</td>
<td>55</td>
<td>6.9</td>
</tr>
<tr>
<td>It is advertising/promotion</td>
<td>47</td>
<td>5.9</td>
</tr>
<tr>
<td>Industry should be separate from doctors</td>
<td>26</td>
<td>3.3</td>
</tr>
<tr>
<td>Conflict of interest</td>
<td>25</td>
<td>3.1</td>
</tr>
<tr>
<td>Product should speak for itself</td>
<td>16</td>
<td>2.1</td>
</tr>
<tr>
<td>Cost passed on to consumers</td>
<td>12</td>
<td>1.5</td>
</tr>
<tr>
<td>Doctors too busy</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>Doctors should pay their own way</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>63</td>
<td>7.9</td>
</tr>
<tr>
<td>Total</td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

The majority of respondents (704, 88%) felt that it was appropriate for industry and doctors to conduct research together. Table 43 shows the proportion of respondents who believe this is appropriate and their reasons for doing so.

<table>
<thead>
<tr>
<th>Why appropriate?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Their different skills are beneficial together/learn from each other</td>
<td>386</td>
<td>54.8</td>
</tr>
<tr>
<td>Feedback from doctors to industry means better research</td>
<td>186</td>
<td>26.4</td>
</tr>
<tr>
<td>Doctors need to know how the drugs work</td>
<td>65</td>
<td>9.3</td>
</tr>
<tr>
<td>Can lead to more accountability</td>
<td>28</td>
<td>4.0</td>
</tr>
<tr>
<td>As long as it is unbiased</td>
<td>22</td>
<td>3.1</td>
</tr>
<tr>
<td>Gov’t doesn’t provide enough funding for research</td>
<td>7</td>
<td>1.1</td>
</tr>
<tr>
<td>Doctors can’t do it on their own/need industry resources</td>
<td>6</td>
<td>0.9</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>704</td>
<td>100</td>
</tr>
</tbody>
</table>

Of those respondents (N = 56) who did not think it was appropriate for doctors and industry to conduct research together, (24 (41.9%) felt that it was because doctors should be separate from industry; 19 (33.7%) felt that it is inappropriate because it could lead to the doctor or the results to be biased/collusion (Table 44).
Table 44: Doctors and industry researching together is not appropriate

<table>
<thead>
<tr>
<th>Why not appropriate?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors should be separate from industry</td>
<td>24</td>
<td>41.9</td>
</tr>
<tr>
<td>Can lead to doctor/results to be biased/collusion</td>
<td>19</td>
<td>33.7</td>
</tr>
<tr>
<td>Conflict of interest</td>
<td>8</td>
<td>14.5</td>
</tr>
<tr>
<td>Don't know</td>
<td>6</td>
<td>9.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
<td>100</td>
</tr>
</tbody>
</table>

A large majority of respondents (785, 98.2%) felt that it is appropriate for the pharmaceutical industry to provide doctors with information about their drug products. As shown in Table 45, the majority of these respondents (718, 91.5%) felt this way because doctors need as much information as they can get to be kept up to date. Some respondents answered this question a qualified manner e.g. “as long as the information is unbiased” (16, 2%).

Table 45: Industry providing products information to doctors is appropriate

<table>
<thead>
<tr>
<th>Why appropriate?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors need as much info as they can get</td>
<td>718</td>
<td>91.5</td>
</tr>
<tr>
<td>How else are they supposed to get the information</td>
<td>30</td>
<td>3.8</td>
</tr>
<tr>
<td>As long as it is unbiased</td>
<td>16</td>
<td>2.0</td>
</tr>
<tr>
<td>As long as they make up their own minds</td>
<td>13</td>
<td>1.7</td>
</tr>
<tr>
<td>Irrelevant answer</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>Don't know</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>785</td>
<td>100</td>
</tr>
</tbody>
</table>

The reasons given by the small number of respondents who did not agree that it was appropriate were: that it was biased information (N=6); doctors should know (N=1) and an independent third party of government should provide the information (N=6).
Respondents were asked if they agreed or disagreed to the statement that doctors are too close to industry (Table 46). A total of 307 (38.3%) of respondents disagreed. However, almost 40% either opted for neither agree or disagree (13%) or indicated that they did not know if doctors are too close to industry (214, 26.7%). Males were more likely than females (27.2% versus 17.2%) to agree that doctors are too close to industry (OR 0.55, 95% CI 0.40 – 0.78).

Table 46: Agree that doctors are too close to industry

<table>
<thead>
<tr>
<th>Agree that doctors are too close to industry</th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>176 (22.0)</td>
<td>104 (13.0)</td>
<td>307 (38.3)</td>
<td>214 (26.7)</td>
</tr>
</tbody>
</table>

3.8 Industry and promotional activities

Respondents were asked a series of questions regarding their perceptions about industry sponsored disease and drug promotional activities.

More than eight in ten respondents (675, 84.3%) agreed that it was appropriate for industry to sponsor disease awareness campaigns (Table 47). An almost equally large proportion (651, 81.4%) indicated that they believed that company sponsored promotion as involving both advertising and information (Table 48).

Table 47: Appropriate for industry to sponsor campaigns

<table>
<thead>
<tr>
<th>Appropriate for industry to sponsor campaigns</th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>675 (84.3)</td>
<td>31 (3.9)</td>
<td>69 (8.6)</td>
<td>25 (3.1)</td>
</tr>
</tbody>
</table>
Table 48: Descriptions about medications from industry are mainly

<table>
<thead>
<tr>
<th>A bit of both</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>73</td>
<td>9.1</td>
</tr>
<tr>
<td>Information</td>
<td>63</td>
<td>7.9</td>
</tr>
<tr>
<td>Don't know</td>
<td>13</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

Respondents were asked ‘Who should provide health messages to the public?” Table 49 shows that most respondents believed that health messages to the public should be provided by non-commercial entities such as a government department (233, 29.2%), doctors/health workers/chemists (206, 25.8%) or a health department (184, 23.0%).

Table 49: Who should provide health messages to the public?

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gov’t department</td>
<td>233</td>
<td>29.2</td>
</tr>
<tr>
<td>Doctors/health workers/chemists</td>
<td>206</td>
<td>25.8</td>
</tr>
<tr>
<td>Health department</td>
<td>184</td>
<td>23.0</td>
</tr>
<tr>
<td>Drug companies</td>
<td>41</td>
<td>5.2</td>
</tr>
<tr>
<td>Combination of sources</td>
<td>36</td>
<td>4.5</td>
</tr>
<tr>
<td>Medical/doctors association</td>
<td>29</td>
<td>3.7</td>
</tr>
<tr>
<td>Disease focussed organisations</td>
<td>14</td>
<td>1.8</td>
</tr>
<tr>
<td>Independent body</td>
<td>14</td>
<td>1.7</td>
</tr>
<tr>
<td>Media</td>
<td>10</td>
<td>1.3</td>
</tr>
<tr>
<td>Don’t know</td>
<td>32</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100</td>
</tr>
</tbody>
</table>

3.9 Attitudes towards DTCA

Respondents were provided with a brief description of Direct to Consumer Advertising (DTCA) of pharmaceutical products and asked if they felt it should be allowed in Australia. They were subsequently asked why they held that view. More than three-quarters of respondents (608, 76%) felt that DTCA should not be allowed in Australia. Table 50. These respondents felt this way, in the main, because doctors or the government should be the primary source of information (213, 35.0%) and because
people are gullible/ they will want drugs they don’t need (174, 28.6%). Those with 
post-school qualifications were significantly less likely to agree that DTCA should be 
allowed in Australia (14.0% versus 26.7%; OR 0.45, 95% CI 0.31 – 0.66).

Table 50: DTCA should not be allowed in Australia

<table>
<thead>
<tr>
<th>Why Not</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor/Govt should be primary source of info</td>
<td>213</td>
<td>35.0</td>
</tr>
<tr>
<td>People are gullible/will want drugs they don’t need</td>
<td>174</td>
<td>28.6</td>
</tr>
<tr>
<td>It's unethical/just to make a profit</td>
<td>58</td>
<td>9.5</td>
</tr>
<tr>
<td>Ads won’t contain enough info/biased</td>
<td>50</td>
<td>8.3</td>
</tr>
<tr>
<td>People are gullible/will think they're sick when they're not</td>
<td>50</td>
<td>8.2</td>
</tr>
<tr>
<td>Dangerous/can get out of hand</td>
<td>22</td>
<td>3.6</td>
</tr>
<tr>
<td>Unnecessary</td>
<td>21</td>
<td>3.5</td>
</tr>
<tr>
<td>Affects relationship between doctor and patient</td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td>Increase the costs of drugs</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Don't know</td>
<td>10</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>608</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

As shown in Table 51, respondents who felt that DTCA should be allowed in Australia 
(133, 16.6%) felt this way mainly because it would let the public know what is 
available/raise awareness (105, 78.9%).

Table 51: DTCA should be allowed in Australia

<table>
<thead>
<tr>
<th>Why?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lets the public know what's available/raise awareness</td>
<td>105</td>
<td>78.9</td>
</tr>
<tr>
<td>No harm in it</td>
<td>8</td>
<td>6.2</td>
</tr>
<tr>
<td>As long as still have to go through doctor</td>
<td>6</td>
<td>4.9</td>
</tr>
<tr>
<td>As long as independent body regulates</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>Could make industry more honest if out in public</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Don't know</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>133</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Respondents were asked if they agreed with the statement that if a drug is advertised it is safe. As shown in Table 52, around two-thirds of respondents disagreed with the statement (510, 63.8%). Older respondents were less likely than younger respondents (18.9% versus 31.8%) to agree that if a drug is advertised it is safe (OR 0.499, 95% CI 0.36 – 0.70).

Table 52: Agree that if a drug is advertised it is safe

<table>
<thead>
<tr>
<th></th>
<th>Agree (%)</th>
<th>Neither (%)</th>
<th>Disagree (%)</th>
<th>D/K (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If a drug is advertised it is safe</td>
<td>208 (25.9)</td>
<td>58 (7.3)</td>
<td>510 (63.8)</td>
<td>24 (3.0)</td>
</tr>
</tbody>
</table>

4 Discussion

4.1 Analysis of independent variables

There was variation in responses, to greater and lesser degrees, within the demographic groupings. There were some significant differences in responses within the health status, age and employment status variables. However, these variations did not form an overall picture, or trend, in the attitudes or behaviour of people when analysed by these characteristics. However, the variation in responses between the sexes and those who had post-school qualifications, and those who did not, does provide some insight into the differences in attitudes and behaviours within these groups. A description of the variation in responses for each independent variable is provided below.
4.2 Self-assessed health status

Respondents in poorer health (those who assessed their health status as poor/fair), were more likely than healthier respondents to report asking about a brand name drug they had heard about in the media; to feel they had been prescribed a drug they didn’t really need and to have been given a drug sample. Healthier respondents (those who assessed their health as good to excellent) were more likely to believe sexual dysfunction had been exaggerated in the media and if their doctor suggests a medicine, to ask if there is an alternative.

4.3 Age

Older respondents were less likely than younger respondents to trust information provided by a government health department; to believe that sexual dysfunction and ADHD has been exaggerated in the media and to agree that if a drug is advertised it is safe. Older respondents were more likely to agree that industry’s primary motive is to help people, and younger respondents were less likely to ask their doctor about a brand name drug they heard about in the media.

4.4 Employment status

Respondents who were employed were less likely than respondents who were not in the labour force to ask their doctor about a treatment or a brand name drug they had heard about in the media. Employed respondents were more likely to have been prescribed a medicine after asking their doctor about a condition they had heard about in the media.
4.5 Sex

Men were less likely than women to recall hearing about a condition in the media; to look for more information about a treatment they heard about in the media and to ask their doctor about a treatment they had heard about in the media. Males were more likely than females to have received treatment for a condition they had heard about in the media after approaching their doctor. They were also more likely than females to have worried they may have a condition they heard about in the media and subsequently seek advice from their doctor, as well as to agree that doctors are too close to industry.

If their doctor suggests a medicine, women were more likely to; ask for more information; ask if there is an alternative; to ask if the medicine is really necessary and to ask about side effects.

They were more likely to agree that industry’s primary motive is to help people and less likely to agree that industry’s primary motive is to make profits.

These results indicate that while men were less responsive than women to messages about treatments in the media, they were more reactive than women to messages about conditions. Women were generally more engaged than men with their doctor in the consultation room; they were less likely to accept a prescription without asking about alternatives, efficacy and side effects. Females also had a more positive view of industry than males.
4.6 Post-school qualifications

Those with post-school qualifications were *more* likely than less educated respondents to seek further information and to ask their doctor about a condition they had heard about in the media. They were also *more* likely to have that inquiry result in treatment and to feel they have been prescribed a drug they didn’t really need. These more educated respondents were *more* likely than their less educated counterparts to agree that there are medical conditions that are over treated in Australia.

Those without post-school qualifications were *less* likely to trust information from a government health department and *more* likely to trust information from industry. These less educated respondents were also *more* likely to agree that industry’s primary motive is to help people and *less* likely to agree that industry’s primary motive is to make profits. This higher level of trust of industry by less educated respondents is also evident in the results indicating that they are *more* likely to agree that industry is honest in the way it promotes drugs and health, as well as to agree that claims made by industry are trustworthy.

Those without post-school qualifications also gave responses indicating a greater belief than more educated respondents in the ability of medicines to help them. They were *more* likely to agree that if they had a health issue they would ask their doctor if a medicine would help and *less* likely to agree that they would prefer not to use a medicine if another treatment was available.
The overall picture that emerges is that consumers who have higher levels of educational attainment are more critical of industry and are more sceptical about medicine use, than those who are less educated.

### 4.7 Information sources

The survey results show exposure to information about medical conditions and associated treatments in the broadcast and print media often prompts consumers to seek more information, predominantly on the internet. The results also show that seeking further information often results in consumers requesting or receiving a medicine or other forms of ‘treatment’ – a category that for the respondents included ‘life-style changes’ such as diet, exercise and quitting smoking as well as what would be more conventionally regarded as treatments such as prescription medicines.

The majority of respondents recalled hearing about a condition or treatment in the media. Numerous illnesses were recalled but the prominence of cancer is in line with findings of other studies that suggest both its salience in peoples’ thinking about illness and also that cancer is a mainstay of news and commentary on health and illness.\(^{[210]}\) Many respondents also recalled hearing of numerous types of treatments in the media. Interestingly, most respondents identified lifestyle changes such as diet, exercise and stopping smoking as the ‘treatment’ they recalled hearing about. This probably reflects the prominence of public health promotion campaigns at the time of survey. For example, in addition to the long-running anti-smoking media campaign, a high profile anti-obesity media campaign was being run in the Hunter (as elsewhere in NSW). Health promotion advocates might take some satisfaction in the high frequency of reported recall of such ‘treatments’ in the survey.
As in other consumer surveys[228, 229] most respondents nominated their doctor as their usual source of information about a condition or treatment. News of a condition or treatment prompted many respondents to talk to their doctor with around half of these reporting that this resulted in receiving a treatment and, for half of these, the treatments were prescription medicines. Hearing about a specific brand name drug in the media also prompted discussion with a doctor and this frequently resulted in the medicine being prescribed. The data cannot show whether the media prompted a helpful discussion between doctor and patient with appropriate treatment (prescription medicine or otherwise) being prescribed. In the absence of data to the contrary, we might assume that in each case the media prompted a helpful discussion between doctor and patient and appropriate treatment being prescribed. However, that media reports are cited as prompting consumers to speak to their doctor underscores the importance for balance and accuracy in media reports about conditions and treatments. This could lessen the need for doctors to correct misapprehensions and heightened expectations.[73]

While doctors featured prominently, for many respondents the doctor is not the first or only port of call for further information of a condition or treatment heard about in the media. Among those who looked for more information, the internet was overwhelmingly the most frequently reported source. These results support the findings of other studies that suggest that the internet is becoming a key source of health related information in the general population.[196, 230-233] The results cannot show how respondents searched for information, or what web sites they visited, but the data does show most were satisfied with the information they found on the internet, with most indicating that they found it helpful. Again, in the absence of data to the contrary we might assume that satisfaction indicates helpful exposure to quality information. Satisfaction notwithstanding, given the uneven quality of health information on the internet, it could
equally be possible that respondents have been exposed to poor quality information.\textsuperscript{[234]}

The results show an interesting difference between where respondents reportedly usually seek information - their doctor; and where they will turn on hearing about a condition or treatment in the media – the internet. The difference possibly reflects a degree of social desirability bias, where respondents anticipate that reporting ‘the doctor’ as their usual source would be expected as the most appropriate response. Equally, the difference might reflect the increasing ease and immediacy for Australians to consult the internet as a source of health and medicines information.

The internet has become a vast repository of both technical information and non-technical health information\textsuperscript{[232]} that may empower people to maintain and improve their own health and the health of those around them.\textsuperscript{[196]} The potential for the internet to provide sound medicines information was demonstrated in a recent Australian government campaign aimed at consumers (‘Use Medicines Wisely’) which used the internet, Twitter and Facebook.\textsuperscript{[235]} Benefits aside, concern about the quality of medicines information available via the internet is growing.\textsuperscript{[224]} The quality of the medicines information available to Australian consumers via web pages and blogs has long been questioned\textsuperscript{[236]} and questions have multiplied with the rise of social media, not the least because of their potential as platforms for drug marketing or ‘e-detailing’.\textsuperscript{[161, 223]}

The survey results confirm the role of television and print media as important influences on health information seeking behaviour. The data indicate that consumers respond to
news of a condition or a treatment by talking to trustworthy sources such as their doctor or other health professional. Most significantly, the data also indicate that media reports act as a launch pad to the increasingly reachable internet where the quality of information is variable and drug promotion increasingly prevalent. An implication for current Australian medicines policy is the need to recognise that the traditional media, the internet and social media are increasingly integrated; media reports need to comply with current regulations and restrictions to minimise the potential for inappropriately prompting consumers to use the less regulated web.

4.8 Level of trust in information from various sources

The results show that people are generally sceptical about the veracity of information provided by industry, mirroring results found elsewhere. Yet respondents feel that government health departments and disease focussed organisations are generally to be trusted when they provide health information to the general public. However, this trust may be misplaced. Respondents appeared to be aware that the information provided by industry may not be all it seems, but they may be unaware that the information from a source they trust, such as a disease focussed organisation may be, in fact, sponsored by a pharmaceutical company. Particularly as “many consumer/advocacy groups around the world now rely on such funding [from pharmaceutical companies].” An example of this would be the substantial donations received by the Australian Arthritis Foundation from drug companies.
4.9 Disease exaggeration in the media

It is argued in the literature that conditions that have vague, somewhat elastic symptoms without a concrete diagnostic criteria are more likely to be promoted in the media to increase sales of pharmaceutical remedies. The results show that more than half of survey respondents agreed that sexual dysfunction and ADHD had been exaggerated in the media. Further, a large proportion of respondents felt that ADHD was over treated in Australia. These results reinforce other research that highlights how the portrayal in the media of these two conditions has been less than truthful and misrepresents their prevalence and severity. While these conditions do fit the criteria described by Woloshin and Schwartz, so do depression and osteoporosis, conditions the majority of respondents did not feel had been exaggerated. Mental illness, including depression, was also thought to be under treated in Australia.

Restless leg syndrome has also been identified as a condition that has had its severity exaggerated in the media. However, almost half of survey respondents indicated that they did not know if it had been exaggerated, which may indicate that they have little awareness of this condition.

The results indicate that concepts of disease exaggeration and over treatment are ones respondents are familiar with, and while many respondents concur with critics about some conditions, they don’t with others. Why do respondents not feel that osteoporosis and depression have been exaggerated while they believe that sexual dysfunction and ADHD have? As stated previously, on balance, respondents trust information provided by disease focussed organisations, and the advocates for
depression and osteoporosis may potentially have influenced respondents’ perceptions of these conditions.

4.10 Attitudes towards taking and discussing medicines

When it comes to attitudes towards medications, the results suggest engagement and responsibility regarding the use of prescription medicines. Most respondents indicated a willingness to ask their doctor about a medicine when they have a health issue, but also indicate that they would prefer not to take a medicine if there is a non-medicine alternative. Most respondents indicate that if their doctor does suggest a medicine, they will ask questions and want to know more about a medicine that might help. They want to know if it is really necessary, if there is another course of action they might take and what side effects there may be. These results challenge the assumption that consumers want a ‘pill for every ill’.

The results show that respondents see themselves as part of the decision making process when it comes to taking prescription medications. Most respondents indicated that they prefer to make the decision about whether or not a drug is necessary equally with their doctor. Most also indicated that if their doctor says that a drug is necessary, they will likely fill the script and take the medicine.
4.11 Attitudes toward Industry

The results suggest some ambivalence in many respondents’ attitudes towards industry. Almost half of the respondents felt that the primary motive of industry is to help people and a large majority of respondents indicated that the work of the pharmaceutical industry has improved the health of the population. However three-quarters of respondents indicated that the pharmaceutical industry’s primary motive is to make profits; for many respondents the first words that come into their heads when they think of industry are *big business* and/or *profits*. Many respondents also disagreed that industry is honest in the way it promotes drugs or health; disagreed that statements made by industry are trustworthy and perceived descriptions of medications by industry as mainly a mixture of information and advertising. This somewhat suspicious view of the pharmaceutical industry and drug promotion has been found in surveys elsewhere.\(^{[242]}\)

The results indicate that there is wide recognition that industry is profit driven and that its promotion is not always trustworthy, this is counterbalanced by a belief that industry has contributed to a healthier world.

4.12 Industry relationship with doctors

Other studies suggest that people are generally aware that physicians receive gifts of one sort or another from industry.\(^{[243, 244]}\) and that the level of support for gifts declines as the cost of the gift increases; the more expensive the gift, the less likely people are to think it is appropriate. Our results provide a similar picture, with over half of
respondents indicating that small gifts such as pens being appropriate, but only a third indicating that providing lunch appropriate and less than a third indicating that a sponsored overseas conference attendance was appropriate.

The majority of respondents who felt gifts were inappropriate, did so because they thought that such gifts should not be necessary and that they provided an opportunity for corruption.

The majority of respondents saw the benefit of industry conducting research with physicians as well as providing physicians with information on their products. A relatively high proportion of respondents also disagreed that doctors were too close to industry.

Nevertheless, respondents, in general, are likely not to be aware of the extent of potential financial interactions in clinical research and the potential bias that may occur as a result of industry sponsored research.[245, 246]

The results indicate that respondents believe doctors to be fallible, that industry sponsored gifts have the potential to influence doctors’ prescribing habits, and they don’t like it. The results also show that respondents perceive a distinction between providing doctors with gifts and informing them about products. The former is not acceptable, the latter is.
4.13 Attitudes towards DTCA

Respondents do perceive a distinction between the appropriateness of industry sponsoring disease awareness campaigns and DTCA. While disease awareness campaigns sponsored by industry are seen to be OK by most, a line is drawn when it comes to advertising drugs to the public. Most respondents are suspicious of this practice. Most respondents who disagreed that DTCA should be allowed in Australia did so because they felt that the government should be the primary source of drug related information and they thought that people would be persuaded to want medications they don't need. This scepticism regarding the veracity of drug promotion is also evident with the majority of people surveyed disagreeing that if a drug is advertised it is safe.

5 Limitations

The study has a number of limitations. The open-ended questions required people to recall past events and behaviours. The results are based on self-report, not observed behaviour. The survey was conducted in a single region – the Hunter region of New South Wales. However, while there are some demographic differences between the Hunter and other Australian regions, there is no reason to expect responses to be substantially different elsewhere in Australia.
6 Conclusion

The survey of consumers lends some support to the pharmaceuticalisation thesis assertion that people regard pharmaceuticals as advances. Respondents showed a generally permissive attitude towards drug promotion and doctor-industry research collaboration. There was an apparent willingness to seek further information about drugs heard about through the media by talking to their doctor or using the internet. On the other hand the respondents also displayed a degree of awareness of the problems of drug promotion and of the potential for diseases to be exaggerated. They also reported a preference not to uses medicines if other treatments were available and a preference for sharing decision with their doctor. Like critics of drug promotion and pharmaceuticalisation theorists, the survey data suggested a degree of ambivalence about pharmaceuticals and recognition of the potency of promotion. Less apparent was a sense of doctors' hubris and if there wasn’t explicit acknowledgement of their susceptibility this is perhaps suggested by their continuing reliance on the doctor. Overall my data lends some support to the claims of the pharmaceuticalisation thesis. People do appear to have high expectations of pharmaceuticals and are willing (albeit sometimes reluctantly) to reach for a medicine to address a health problem.
Chapter 5: Discussion

In our current medical age, consumers have become increasingly vocal and active in their desire and demand for services. - Peter Conrad, 2007

Chapter 5: Discussion – Key Points

- The regulation of industry promotion in Australia is a contested space.
- Disease mongering is an important concept, but has limited analytic power. The pharmaceuticalisation thesis incorporates a broader range of influences to explain consumer demand for medicines.
- Overall my data lends some support to the claims of the pharmaceuticalisation thesis.
- The cogency of the pharmaceuticalisation thesis in turn supports both maintaining the ban on DTCA and the call by critics for greater regulatory attention to other aspects of drug marketing that circumvent the ban.
- The idea of pharmaceuticalisation could be more widely discussed in Quality Use of Medicines (QUM) initiatives.

Chapter outline

In this chapter the findings of the three studies that form this thesis are synthesised with reference to the literature regarding disease mongering and pharmaceuticalisation. The chapter discusses the extent to which the theoretical assumptions about consumers are reflected in the results of the research. The implications for the regulation of pharmaceutical promotion are considered and implications for further research are outlined.
1 Introduction

Chapter 1 described the regulation of industry promotion in Australia. Drug promotion is a contested space, with many claims and counter claims about the benefits and harms of drug promotion and continuing debate on the extent to which Australians are over-protected or under-protected from drug promotion. Research on drug promotion, however is relatively limited, and to many observers the available evidence of benefits and harms is equivocal. The claims and counter claims about drug promotion typically rely on a set of assumptions about consumers and their medicine related behaviours. I argued that most of the attention paid to drug promotion and its regulation has been prompted by critics of drug promotion and their claims of its potential to compromise safety and cost. Given this, it is reasonable to focus on how critics of drug promotion conceptualise consumers and further explore the accuracy of their conceptualisation by looking more closely at consumer medicine related behaviours.

In Chapter 2, I presented the results of in-depth interviews with critics of drug promotion undertaken to move beyond the limits of published critical commentary and more firmly establish what assumptions are made about consumers and their medicine related behaviours. My conclusion from studying the literature and talking to critics was that consumers are predominantly constructed as susceptible – a quality emerging from their perceived lack of knowledge of illnesses and medicines, an uncritical acceptance of drug promotion and media portrayals of illness and drugs and a favourable disposition towards drugs as remedies over other means of treating and preventing illness. The role of the media in consumer susceptibility was also identified as a particularly salient element in the critique.
These perceptions of consumers and the media were empirically explored in the studies presented in Chapter 3 and Chapter 4. Chapter 3 presents a study of media coverage of three purposively selected conditions (depression/bipolar, obesity and breast cancer) to explore how these conditions were portrayed in the researcher’s local media during a specific time period, specifically to see if there is evidence of, as Williams et al (2011) contend, the “(re)framing of health problems in the media and popular culture as having a pharmaceutical solution.”[179] The study showed quite different representations of each disease, only one of which portrayed pharmaceutical treatment in a predominantly positive light. Depression/bipolar was portrayed as having a biomedical cause, with drug treatment in many cases a saving grace. However, obesity was presented as a lifestyle problem with lifestyle solutions. Breast cancer was presented as a biomedical problem and treatment was depicted as gruelling.

Chapter 4 reported the results of a community survey that investigated: self-reported consumer exposure to media about conditions and treatments; where consumers gain information about conditions and treatments; consumers’ attitudes and behaviours towards medicines, as well as consumer perceptions of industry and their promotional activities. The results show that the media does influence consumers’ information seeking behaviour, they do seek further information from the internet and their doctors as a result of being made aware of conditions and treatments in the media. Nevertheless, the results indicate that consumers are critical of industry; the information they provide as well as their promotional activities. The overall picture that emerged in the results is that of an engaged and sceptical consumer who would prefer to avoid taking medicine if they can, but will use one if available.
In this final chapter I bring together what has been learnt about consumers from the studies undertaken and compare/contrast this to the consumer that appears in the critique of drug promotion. I then draw some practical implications of this study for policy and further research.

2 Pharmaceuticalisation and the media

The results from Chapter 3 highlight that there are differences in how conditions are portrayed in the media. Depression/bi-polar are conditions identified in the literature and in the in-depth interviews as being subject to disease mongering tactics. The media collected regarding these conditions did display some of the features discussed in the critique in one case. Namely, pharmaceutical intervention was presented predominantly in a positive light and as a saviour to sufferers of depression/bipolar. There was concern expressed in this media that there is the potential that people could take anti-depressants unnecessarily. However, this concern was in the minority and in general it was related to misdiagnosis by doctors and, by implication, expressed concern that people were taking drugs they don’t need. The concern generally centred on children where demand is seen to be created by parents and teachers who seek to label children to get them access to resources they may not have otherwise, and for parents to shift blame for their child’s unruly behaviour away from themselves. Over/miss-diagnosis is seen to be vested in some instances with the prescribing doctors who in these cases are seen to leap too quickly to pharmacological solutions.

Conversely, breast cancer and the treatment for it, was portrayed as a scourge, destroying not only women’s lives, but their concept of self. For this condition unnecessary treatment was discussed, and is seen to occur when screening
procedures detect growths that may never evolve into a tumour. However, treatment for the condition is presented as gruelling and physically disfiguring in some cases. The drugs involved (chemotherapy), are certainly not ones consumers would be influenced to demand unnecessarily.

The media around obesity was overwhelmingly negative, reflecting the pressure consumers are under to be as healthy as they can, producing a response that not doing so carries with it social disapproval. Consumers were entreated to adopt lifestyle interventions as ‘treatment’ and drug treatment was rarely mentioned. Overtreatment in the case of obesity was centred on lap-band surgery, particularly when it was publicly funded. The tenor of the media treatment of these issues was that consumers should exercise self-restraint, look after themselves and not expect medical intervention.

While there is no way of knowing if consumers’ perceptions of the selected conditions were shaped by these media representations, the discussion in the literature indicates that it is certainly possible.\[200, 201, 204, 209]\]

The media representations of these conditions do reflect some of the concerns of the pharmaceuticalisation thesis; that drugs are presented in some cases as transformative, a ‘saving grace’; consumers are brave for facing up to their problems and getting help, they are ‘doing something about it’; and the strong presumption that consumers need to look after themselves, to restore themselves to health.
3 Consumers and medicine related behaviour

In Chapter 1 it was argued that the regulation of pharmaceutical promotion is informed by assumptions made about consumers by both sides of the regulatory contest. Pharmaceuticalisation provides a more comprehensive framework to understand the difficulties with drug promotion than disease mongering can. In essence, disease mongering is an important concept that captures a wide array of issues related to the problematic use of medicine. However, as a concept it has limited analytic power. According to Williams et al (2011) “the power and influence of the pharmaceutical industry is clearly extensive and should not be underestimated,”[179] nevertheless, there are broader conceptual influences at play.

Promotion is seen in the literature as a problem because it creates excessive and unnecessary pharmaceutical demand. When viewed through the sociological lens of pharmaceuticalisation this excessive demand is seen to have evolved in a more complex manner than described in the literature on disease mongering. While the pharmaceutical industry is a player in the process of pharmaceuticalisation, including the sub-process of biomedicalisation,[156, 193] the situation of problematic pharmaceutical demand is more complicated. According to Rose (2006)

“It is too simple to see actual or potential patients as passive beings, acted upon by the marketing devices of Big Pharma who invent medical conditions and manipulate individuals into identifying with them. The process is more subtle”.[247]

Pharmaceuticalisation is a critique of the processes that provide the opportunity for pharmaceutical products to be meshed in daily life.[111, 179] Within this framework,
biomedicalisation conceptually emphasises risk reduction and health itself is transformed into an entity with the moral imperative of self-management. In this way the presence of some kind of industry intervention in daily life can be normalised, even expected. The World Health Organisation (WHO) defines health not just as the absence of disease but ‘as a state of complete physical, mental and social well-being.’

Drugs that are part of this process are taken into the body and produce biochemical bodily effects. They also can have profound cultural and social transformative powers. According to Mamo and Fosket (2009) “bodies are not born, they are made.” They aim to improve the consumer’s lifestyle rather than strictly attend to a disease state. Therefore, there is the tacit belief or acceptance that the management of health and illness rests with the individual. It thus produces a responsibility loaded with moral imperative. “Specifically, health becomes an individual goal, a social and moral responsibility, and a site for routine biomedical intervention.” Health is no longer reactive, to recover or manage illness or disease, but proactive: one must keep oneself in an optimal health state. This imperative creates a virtue, a moral high ground to occupy when we are healthy. We now occupy a space where “health has become a central ethical principle” and the “pursuit of health has become a cultural project.”

This transformation is made more complete when the locus of power and responsibility to manage health (and to blame for illness) shifts, to varying degrees, from the physician/State to the individual patient/consumer. Patients are actively, and increasingly, encouraged to become informed consumers of the technologies and interventions, pharmaceutical and otherwise, that are available to manage and control their own health, and they are heeding the call. From this perspective, users of prescription medicines are increasingly being viewed as “knowledgeable reflexive
actors, assessing risks and benefits and making informed choices about their treatment\textsuperscript{[179]} as opposed to “an inferior mass subjected to basic instincts and irrational fears.”\textsuperscript{[251]}

To maintain this optimal state of being healthy an individual has to manage and assess risk through surveillance. Concurrently, the rise of more sophisticated assessment technologies and tools to measure what risks we may face has altered our perception of what it is to be normal. We are all notionally at risk, “rendering us ready subjects for health related discourses, commodities, services, procedures and technologies”.\textsuperscript{[193]} We are no longer treating only manifest disease, we are treating and managing the risk of disease, and to not do so is to be a morally irresponsible member of society. Now that we have the ability to measure and assess risks to our health, we create a constant state of anxiety which we hope to minimize through surveillance and information.\textsuperscript{[252]} Therefore, we are now in the contradictory situation where the healthier we become as a population, at a personal level our satisfaction with our own health declines and the more apprehensive we are about possible symptoms of disease.\textsuperscript{[253]}

We have the promise of technological capacity, coupled with the moral imperative to, if not achieve perfection (what we’re striving for), at least to achieve normality. The difficulty is that what is conceptualised as normal is constantly changing and being influenced by powerful forces; including but not confined to the pharmaceutical industry. In contemporary Western society, being healthy is an optimal state promoted to citizens as an ethical objective that we have an obligation to achieve, not just for ourselves but for wider society. The pursuit of health has become an inherently moral pursuit: to not pursue good health is to risk social censure.\textsuperscript{[10, 194, 254]} As a dominant
virtue, health and the quest for it, provides the opportunity to achieve if not a form of secular salvation then a sense of moral worth.\textsuperscript{[252, 255]}

3.1 Consumers want perfection and a ‘pill for every ill’

A common perception put forth by critics of pharmaceutical promotion is that consumers ‘crave’ pharmaceutical products\textsuperscript{[198]}, they want a ‘pill for every ill’\textsuperscript{[238]} and are conditioned to address any imperfections with a pharmaceutical.\textsuperscript{[102]} This characterisation of consumers as vulnerable and anxious was reinforced in the in-depth interviews. On one reading of this, consumers don’t appear to be able to win in the eyes of drug promotion critics. If they take all avenues available to reduce the risk of illness and be as healthy as possible, an act that may involve a prescription medicine, they could be characterised as reaching for unachievable perfection. Conversely, if they do not take these steps, they are exposed to messages in the media that they are disengaged with their own health at best and lazy burdens on society at worst.

The data collected for this thesis reflects this tension. The media study showed that consumers were exposed to media that portrayed conditions as obstacles to be overcome. In the case of depression/bipolar, seeking help was presented as a life-changing and enhancing step. Those who sought help were characterised as brave and drug treatment as a positive step towards leading a ‘normal’ life. There was some talk of people taking drugs that they may not need, however, the benefits presented far outweighed the potential negatives. Women with breast cancer were cast in a heroic light, undertaking arduous treatment to be ‘there for their families’. People who were obese were overwhelmingly presented as villains; lacking in self-control and costing society as well as themselves, materially and aesthetically.
The picture of the consumer that emerges from the survey data and their attitudes towards the use of medicines is that of engagement and responsibility. Respondents in the community survey did seek further information about conditions and treatments they heard about in the media indicating concern and/or interest in health issues. Their responses show that they want to be involved with decisions about their health and do not take medicine use lightly. Consumers interviewed mainly said that they wished to discuss their health concerns with their doctor, negotiate with them regarding the necessity or otherwise of a drug and would prefer not to take a drug if other forms of treatment were available. A relatively high proportion also felt that at some point they had been prescribed a drug that they didn’t really need.

The conditions nominated by the highest proportions of respondents as needing to be addressed the most in Australia, are not ones that indicate people want ‘a pill for every ill’. These conditions, namely, cancer, cardiovascular disease, obesity and diabetes are not ones that people are likely to be convinced they have, if they don’t. Instances of the widening of disease guidelines to treat the risk of disease notwithstanding, respondents were concerned about ‘real’ conditions, and this concern stemmed in the main because it affects many people or a family member or friend has the condition. These are not the responses indicative of people frivolously worried about being perfect. The respondents were concerned about dangerous conditions that could or have afflicted many people, including those close to them. This is not to say that these respondents don’t worry about other, less serious conditions, but they are not forefront in their minds.
Almost a third of respondents felt that there were conditions in Australia that are over-treated, indicating that consumers are aware that the potential exists for people to take drugs that they don’t really need to be taking.

Overall, the results from the data collected for this thesis do not reflect the characterisation of consumers as too easily grasping for pharmaceutical solutions. The assumption that consumers want to be perfect, and have a ‘pill for every ill’ does have some merit, but is certainly not strongly evident in this research. While constructed as wanting perfection, the data reflects more that consumers want to be healthy but they are also somewhat ambivalent about pharmaceuticals.

### 3.2 Consumers are susceptible

The results from the literature review and in-depth interviews present consumers as susceptible to misinformation about illness and imperfection, a liability derived from a confluence of factors such as the dread of sickness and the desire for improvement.

The results from the community survey indicate that the concept of disease exaggeration is familiar to participants. Respondents concurred with critics regarding some conditions being exaggerated in the media, but not others. The results also reveal concern that there are conditions in Australia that are also under-treated, notably mental illness and cancer. As the results from Chapter 3 show, some forms of mental illness (depression/bipolar) as well as breast cancer have been portrayed in the Australian media as being under-treated. This does not necessarily indicate
susceptibility on the part of consumer. It may mean however that pervasive messages about these conditions are getting through to them.

Respondents generally felt that the work of the pharmaceutical industry has benefitted the population, however, that did not translate into blind acceptance of the claims made by industry. Respondents were sceptical about information about drugs and health provided by the industry, and acknowledged there was a profit motive to be considered. Further, they felt that descriptions about medicines originating from industry were ‘a bit of both’ advertising and information. These results do not suggest that consumers are likely to blithely accept drug promotion. Further, the survey results also show that consumers do not think that DTCA should be allowed in Australia with a relatively high proportion giving the reason for their response as ‘people are gullible/will want drugs they don’t need’.

On the other hand, participants placed a high level of trust in information provided by disease focussed organisations. It is plausible that consumers generally are unaware of the extent of industry involvement with these organisations; industry-patient group partnerships are not necessarily overtly advertised by either party. The community survey did not explore respondents perceptions of the interaction between industry and disease focussed organisations, or the influence those partnerships might have the on demand for pharmaceuticals. Given the criticism of Industry-patient group partnerships as an element of disease mongering, respondents' trust in the quality of information from disease focussed organisations may be misplaced. The trust placed in disease focussed organisations could mean that consumers are accepting disease promotion messages uncritically as they come from a source whose integrity is unquestioned, unlike information provided directly by industry.
Overall, the consumers who participated in the survey saw themselves as savvy and proactive, i.e. they don't believe a drug is safe because it has been advertised, they actively seek further information about conditions and treatments and they discuss their concerns with their doctor. They trust their doctors, they trust information from disease focussed organisations and they do not, in the main, trust information provided directly by industry. However they do accept that other people may be gullible and want drugs unnecessarily if DTCA were allowed in Australia.

3.3 The media influences consumer behaviour

In the survey chapter it was shown that, as in other surveys of consumer health and consumer behaviour, when seeking medical information,\textsuperscript{228} the majority of respondents nominated the doctor as their usual source of information about a condition and treatment. However, when they seek further information regarding a condition or treatment heard about in the media, the primary source is the internet. These results reinforce the idea that the media can and do influence health behaviours,\textsuperscript{206} and according to Li et al,\textsuperscript{256} "even brief news media exposure can influence health-related decisions."

The pervasive nature of health and medical topics in the media means that they have the potential to influence a broad range of lay people, professionals in the health system, as well as policy makers.\textsuperscript{155, 206, 257} Which could mean that people are taking drugs, perhaps unnecessarily, because the topic has gained media attention.\textsuperscript{129}
The survey results showed a majority of respondents recalled hearing about a treatment or condition in the media. Many of these then actively searched for more information, predominantly on the internet. The internet was overwhelmingly the most frequently reported source among those who heard of a condition or treatment and then looked for more information. These results support the findings of other studies that suggest that the internet is becoming a key source of health related information in the general population\cite{196, 230-233} including Australian consumers and has grown enormously in recent years.\cite{233, 258} Many people are directed to the internet by public health campaigns as well as other media via the now ubiquitous URL’s found in newspapers, magazines, television and other sources.\cite{230} While the mainstream media do have constraints on what they can publish, the internet is less regulated.

While social media (Facebook, YouTube and Twitter - ‘Web 2.0’) are growing if not yet pervasive sources of communication and potentially a powerful tool for informing consumers on health issues,\cite{161, 233} this research shows that conventional media still dominates. The results also show that inquiring further often results in medicine use or other treatment.

The literature indicates that being exposed to stories in the media regarding medical conditions may cause people to become concerned that they are suffering from the condition. This is the case particularly if the stories are misleading, for example, if the coverage exaggerates the prevalence of the condition or does not give the full context of a new development.\cite{129, 259} The results show that news about a condition or treatment had prompted many respondents to talk to their doctor. Around half of those who talked to their doctor received a treatment and for half of these the treatment was a prescription medicine.
Hearing about a brand name drug in the media was also reported as a prompt to potential consumers to talk to their doctor. This frequently resulted in a medicine being prescribed. This prompt could be beneficial to the consumer if it leads to the diagnosis of a previously undetected condition; or counter-productive if it wastes patients’ and doctors’ time. Talking to a medical expert about a condition or treatment is generally encouraged by the medical profession as long as it is productive, an outcome which is more likely if a patient is well informed, (i.e., has good health literacy).

Therefore, the media and the internet are simultaneously influential and empowering. There is the opportunity for the mainstream media to be both productive and problematic when it comes to health information. However, this does not mean that consumers are uncritical. By prompting discussions with their doctor, consumers are being proactive, seeking information or clarification from an ‘expert’, who it is expected, will act in the best interest of the patient.

As the results presented in Chapter 3 indicate, consumers are exposed to media that promotes some treatments as if not lifesaving, then life enhancing. They are also exposed to media that presents other treatments as taxing and arduous, and in some cases drug treatments are barely mentioned at all. Self-reported behaviour indicates that consumers do react to messages about conditions and treatments in the media and that these reactions can lead to medicine use. What can’t be determined is if that medicine use is appropriate. There is an expectation that any approach to a doctor that was instigated by a media report would only result in a prescription if it was the most beneficial course of action for the patient.
There is the expectation that the media will take care to see that the information provided is correct and not misleading. Unfortunately, it has been well documented that the mainstream media fail to provide substantial information on the way they report medical issues, further, that inaccuracies have then not been corrected. According to Wilson et al, while the situation is changing somewhat, “until recently, researchers, medical journals and other independent groups have done little to assist journalists interpret scientific developments for the public.” After rating 1,230 news stories on an Australian national medical news monitoring web site, Wilson et al were “forced to conclude that the general media are generally failing to provide the public with complete and accurate information on new medical treatments.”

While the unintentional, incorrect or biased reporting of medical issues is certainly of concern, the general public is also confronted with deliberate disease promotion or disease branding. Once a disease is branded and conceptualised through the mass media it attracts a meaning ‘package’ that can then be used as a kind of shorthand to encompass a wider range of beliefs and social attitudes. This phenomenon is clearly implicated in the way conditions such as depression/bipolar and obesity are covered in the mass media.

While DTCA is not allowed in Australia, disease promotion is, and the Australian public may be unaware that what is being presented as news, may have been influenced by pharmaceutical companies. As an example, Hall (2011) describes the exposure of “un-named product” advertising by the ABC television show Media Watch. The Arthritis Foundation placed a community service announcement on ABC television encouraging arthritis patients to approach their doctors regarding a new treatment. “The community service announcement was run following a donation of $250,000 to the Arthritis
Foundation by the makers of Celebrex (Searle and Pfizer)”. Therefore, consumers may be unaware that what they are being exposed to in the mass media may in fact be ‘un-named product’ promotion sponsored by an organisation that stands to profit by increased sales of its product.

3.4 Ambivalence and shared decision making

Experiencing poor health, or the anticipation of poor health, is often distressing and something most wish to avoid. The survey results presented in this thesis indicate that people prefer not to use medicines unless they are considered necessary, and there is no alternative non-medicinal treatment appropriate for their condition. However, consumers also stated that if their doctor suggests a drug, they will ask for more information, including information about side effects. Many respondents viewed the decision to take a drug as something that they share with their doctor, a decision made equally and certainly not lightly.

The active medicine consumer is also a vulnerable and dependent patient. The way doctors and patients interact has been studied from many different view-points. Some contend that the power relationship in the consultation setting has shifted to the patient having more and the doctor less, particularly as the internet becomes a more prevalent source of health information. Others view the relationship as asymmetrical in power and authority in favour of the doctor. The doctor’s expertise produces an asymmetry of knowledge that leaves the patient disadvantaged and the doctor having greater control of the medical encounter. Without sufficient information to make an informed assessment of their condition and treatment options the patient is dependent on the doctor for adequate and impartial guidance.
The results also show that consumers feel that doctors should not be promoted to by industry in any major way. They acknowledge that while they trust their doctors, it is possible that they could be influenced by expensive incentives given by industry.

The results presented in this thesis do not reflect the behaviour of consumers who are demanding medicines from their doctors because of promotion, rather they see information as a discussion point with their doctor, they don’t want that discussion influenced by industry promotional incentives and they see taking a medicine as a step they’d rather not take if it can be avoided.

4 Consumers’ demand for prescription medicines

The regulation of pharmaceutical products in Australia aims to provide safe and effective medicines to consumers and reduce unnecessary demand. The assumptions about consumers (discussed above) that are inherent in the debate regarding pharmaceutical promotion policy were not entirely reflected in the results of this research. The assumptions are weakened by the idealisation of consumers into a character type and by not adequately accounting for the social context in which the demand for medicine is created. This thesis argues that prescription demand is mediated by a variety of factors (doctors, industry, the media, as well as societal norms). These factors are not accounted for solely by an idealised characterisation of the consumer.

Pharmaceutical demand can usefully be seen as the product of the ‘appetite’ for medicines: an appetite that is generated by interaction between manufacturers,
doctors and medicine users. This interaction includes the inter-personal communication within and between patients, doctors and manufacturers and wider discourses, especially where communicated by the mass media, about pharmaceuticals and health. The appetite for medicines creates and is sustained by the continued development and promotion of novel or improved pharmaceutical products. It is further sustained by a continuing expansion of medical science jurisdiction and practice, and by the growing popular interest in health and the perennial desire to be ‘healthy’. These elements are symbiotic and not easily interpretable in terms of cause and effect.

When a drug is deemed safe and effective, demand for it is created by manufacturers and the media, who are seen to influence doctors and consumers. The legitimate marketing and promotional practices of manufacturers are believed to influence demand, by affecting doctors’ prescribing practices and stimulating patients’ desire for pharmaceutical intervention. This influence is considered both beneficial and pernicious: beneficial in the communication of important information about conditions and treatments to doctors and patients; and pernicious in the potential for unnecessarily generating prospective patients for conditions and therapies; the pharmaceuticalisation of society.

Consumer demand for pharmaceuticals is mediated through a variety of channels. The pharmaceutical industry creates drugs to sell in the marketplace, it promotes these drugs directly to doctors, funds disease focussed organisations, ghost writes articles in medical journals that portray the products in a positive light. The media portray drugs in both positive and negative ways. New wonder drugs are given headlines and exposés of pharmaceutical industry wrongdoings attract an audience of readers and viewers. Consumers are entreated to be as healthy as they can be, and drugs are seen as both a tool to achieve this, as well as something to only use when necessary. Consumers
therefore need to negotiate their way through this maze of information in an attempt to ‘do the right thing’; be healthy.

A recent advertising campaign for health insurance company Bupa, encourages consumers to ‘meet the healthier you’. The message is very much that consumers need to take control of their health and be proactive in seeking assistance to find the healthier version of themselves. The reward for this health seeking behaviour is shown to be transformative; in Figure 6 below we see that a washed out looking woman with bad skin and wrinkles, could be, if she only tried, glamorous and glowing (presumably being healthy also involves a stylish hair-cut, the application of make-up and a light tan).

Figure 6: Bupa ‘meet the healthier you’ campaign ad

In this way, consumers are not grasping, they are behaving appropriately when they seek medical assistance for their health. The fulcrum for what constitutes unnecessary demand is not created by the consumer, it is constructed by others. What may be seen
by some as unnecessary demand, potentially exposing consumers to out of pocket costs and the potential of harmful side-effects, is also constructed by different social forces as appropriate and reducing the risk of future illness. Consumers are situated in this contested space.

5 Conclusions

The purpose of this thesis was to explore the cogency of some of the assumptions about consumers that inform the disease mongering critique and the recent sociological concept of pharmaceuticalisation. I believe my research results show that disease mongering and the pharmaceuticalisation critique do have traction, though importantly the results also suggest that the capacity for consumers to be critically aware of drug promotion is perhaps under-appreciated.

According to the tenets of the pharmaceuticalisation thesis consumers are moved to consider drugs as part of their daily lives by forces other than the pharmaceutical industry (while not discounting the power of industry).

- Consumerism prompts people to reach for a consumable good to heal what ails them.
- The portrayal of pharmaceuticals in the media may encourage consumers to see drugs as “magic bullets for a range of day to day life problems”[179] and ask their doctor about them.
- Consumers are entreated in the media and public health campaigns to exercise their ‘entitlement’ and ‘responsibility’ to “find paths to better health”.[275]
- Consumers may think they are informed, but that information may come from dubious sources, or be of questionable accuracy, particularly on the internet.[179]
- The policies of the regulatory state influence demand for drugs.[96]
The main ideas (potency, hubris, susceptibility) identified in the interviews are also apparent in the pharmaceuticalisation thesis. People are seen to be transformed into consumers who are ever willing to use a medicine where one is available. Because they are not ‘expert patients’ their willingness to consume places them at risk of using pharmaceuticals of dubious benefit.

Research into the influence of factors such as ‘mediation’ and consumerism on Australian’s medicine related behaviours is limited. The research for this thesis explores some aspects of each of these factors. I looked at mediation by assessing the ‘framing’ of a number of conditions in a sample of the popular media. I looked at consumerism by asking a large sample of Australian medicine users about their behaviours and attitudes towards pharmaceuticals.

In the study of the media I observed the different discourses about the conditions of depression/bipolar, obesity and breast cancer. The data showed that the media air different framings of conditions, including criticism of medicalisation, confirming the observation of pharmaceuticalisation theorists that the media can be both critical and celebratory regarding stories of illnesses and treatments. The media data only lightly suggested an emphasis on pharmaceutical solutions.

The survey of consumers indicates that consumers are ambivalent about medicines; they would prefer not to take them at all if they can avoid it. Yet, exposure to information may lead consumers to be susceptible to messages about conditions and treatments; to enquire further. While this does not empirically translate to unnecessary medicine use, it does show that the media moves consumers in the direction of drugs.
I believe that my research indicates the cogency of the pharmaceuticalisation thesis and this in turn supports both maintaining the ban on DTCA and the call by critics for greater regulatory attention to other aspects of drug marketing that circumvent the ban. The research does not completely nullify the ‘expert patient’ thesis. Consumers do appear to be ambivalent; however, the data and the pharmaceuticalisation thesis suggest that this ambivalence is weighted more towards expectation for pharmaceuticals rather than critical awareness. People’s susceptibility, their willingness to reach for a medicine is not only related to their exposure to drug promotion but is also derived from the socio-technological conditions such as medicalisation, regulatory imperatives, ‘mediation’ and consumerism. Addressing these factors is not as straightforward as banning DTCA.

As the pharmaceuticalisation thesis shows, the demand for medicines is created by many variables only some of which are controlled by the medicine user and not all the assumptions made about consumers are borne out by the evidence. Consumers tend to discuss treatments with their doctors and are generally informed via a range of media sources. Consumers are strongly influenced by broader social messages conveyed in media coverage and prompted by pervasive community attitudes about personal levels of fitness and responsibility. At a personal level consumers engage in the discourse of pharmaceutical promotion to the extent that they pay attention and seek to be informed.

At a broader community and social level consumers are more vulnerable to the moral suasion contained in political/social/economic agendas which describe health norms using metrics for, among other things, behaviour, weight and happiness. If the consumer does not match these norms there is an expectation that something should
be done about it. Whether the intervention is then a personal responsibility, a course of
treatment, the pursuit of further information, depends to a large extent on what the
condition is and whether the pharmaceutical industry has an intervention for it.

Consumers are exposed to a bombardment of health messages: take this pill, don’t
take that pill, be self-reliant/ self-regulatory, be the best you, you can be; take
advantage of the miracles of modern medicine, but not too much. Somehow
consumers must negotiate this complex information environment. The results from this
research show that consumers are active in their search for information, and do not just
passively accept what they see in the media or gain from their physician, however, they
can be lead to pharmaceutical redress for their problems real or imagined. Current
understanding and regulation of drug promotion doesn't adequately account for the
social and cultural environment that can be described as pharmaceuticalisation.

One possible way forward is to utilise the ambivalence and encourage people to be
more critically aware of their expectations for pharmaceuticals as solutions to remedy
or improve their health and well-being. The idea of pharmaceuticalisation could be
more widely discussed in Quality Use of Medicines (QUM) initiatives.

6 Policy implications

Regulatory policy has, at its core, a desire to protect the public interest against industry
power that does not serve to benefit the public. According to Abraham (2009) “it is
assumed that there exists some divergence, if not conflict, of interests between
industry, seeking to maximise profits, and the public interest.”[100] Williams et al (2009),
described this tension as “the objective interests of pharmaceutical companies in profit
maximisation and the objective interests of patients/public health in the optimisation of the benefit-risk ratio of drugs.\textsuperscript{[12]}

To meet the regulatory aim of reducing unnecessary demand, a policy framework is needed that is not based on untested assumptions about consumer behaviour. Any policy framework will also need to address the industry's role in setting research agendas and the promotion of products that specifically target doctors. The view that the ban on DTCA is sufficient to ensure that doctor-patient relationship isn’t compromised has been based on the assumption that the doctor is an impartial source for information about prescription drugs and will act as some approximation of the ‘perfect gatekeeper’.\textsuperscript{[40]} For critics, doctors prescribe in an environment replete with drug promotion and may be far from perfect gatekeepers.\textsuperscript{[64]}

Policy needs to strike a fine balance between protecting the public from unscrupulous misinformation while making sure that consumers have access to the information they need to make informed decisions about their health. Increased complexity and integration of the medicines information environment calls for a policy that can provide a framework for the coordination of medicines information through all media. A recent NMP policy forum considered whether “a medicines information policy is required to provide a framework for the coordination of information”. The results of this research shows that there is a need for such a policy

The research described in this thesis indicates that regulatory policy regarding pharmaceutical promotion needs to account for the ambivalence of consumers about taking medicines and that consumers make use of a largely unregulated repository of
sometimes dubious, sometimes relevant, health information on the internet. Therefore, any policy assessment that does not take into account the presence of self-interest in the desire for a beneficial outcome, as well as the multi-faceted way consumers gain information about medicines is “simplistic and does not take into account the resourcefulness of consumers.”[84]

Within the theory of pharmaceuticalisation, the various explanatory factors contribute to the creation and growth of pharmaceuticalisation. However, this growth relies on a regulatory state that is complicit in granting approval for drugs that do not improve health outcomes and attempt to dilute the strength of restrictions on DTCA.[96] Abraham (2009) argues that regulatory bodies as well as scientific testing for efficacy and safety should be completely divorced from industry involvement and therefore potential bias.[100] According to Abraham (2010), the policy challenge is to:

“Untangle the dominant policy and popular discourse on innovation, which conflates technological novelty and commercial viability with therapeutic progress, and to refocus attention on innovations that offer therapeutic advance rather than on innovation per se.”[96]

In essence, the more robust the policies of the regulatory state are in ensuring only New Molecular Entities (NME’s) that offer real therapeutic advance are approved, coupled with strict guidelines around the promotional activities of industry to both doctors and consumers, the less room there is for pharmaceuticalisation to grow. The implications of pharmaceuticalisation for Australia’s regulation of drug promotion policy is that a policy focused on banning DTCA, but not attending to factors such as consumerism and mediation is unlikely to be adequate to minimise inappropriate pharmaceutical demand.
7 Implications for further research

Any policy intended to regulate pharmaceutical promotion should be informed by evidence, as well as theoretical arguments and assertions. It has been noted elsewhere that there is limited empirical evidence linking exposure to pharmaceutical promotion and ‘unnecessary’ medicine use.[81, 94] This lack of evidence is understandable, given the methodological challenges involved in gathering data about a complex process such as individual decision making about pharmaceuticals. Why it is the case that “On any given day…more Australians will consume a prescribed medication than any other type of health good or service”[276] and the role of pharmaceutical promotion in that consumption, is described by Norris et al (2005) as, “the most important and most difficult area to research.”[81] The answer to these questions, fundamental to understanding medicine demand, is complex and necessitates an investigation into the dynamics of the consultation room.

Empirical data collection (prospectively and retrospectively) from primary and secondary data sources is needed to assess the interplay between pharmaceutical promotion, prescribing practices and patient demand. Empirical research could involve a longitudinal study collecting user level and prescriber level data to track the impact of pharmaceutical promotion on both consumers and physicians. Peoples’ exposure to promotion, the information sources they use and their subsequent behaviours could be investigated in greater depth.

Both qualitative and quantitative techniques should be employed. It is noted in the literature that qualitative research is badly needed in this area as to date there has been too much of a research emphasis on quantitative studies.[81] In-depth semi-
structured interviews with consumers and doctors could be conducted, to examine their attitudes towards promotion and medicine use. These interviews could then be followed by further interviews with consumers about specific health related behaviour.

Consumers may well be prompted to ask their doctor about a condition or pharmaceutical as a result of promotion and/or media reports. What needs to be demonstrated empirically is whether that inquiry results in a pharmaceutical treatment that is the most appropriate treatment option for the patient. To date, research has focussed predominantly on what people think about promotion and its effects. However, as Norris et al (2005) have observed, “research on this topic cannot provide evidence about the actual effects of promotion.”[81]

In this thesis I have argued that pharmaceuticalisation is an important and useful concept for understanding the growth in pharmaceutical demand. The extent to which pharmaceuticalisation occurs for various conditions or for enhancement is important for understanding how Australians use medicines and for identifying ways to improve quality use of medicines, consumers safety and drug expenditure. One major focus of future pharmaceuticalisation informed research might be to look closer at peoples' prescription medicine decisions.

Quantitative research could include a structured look at pharmaceutical decisions. Conjoint analysis such as Discrete Choice Experiments (DCE) with both consumers and doctors could be explored as a method. A DCE involving consumers might investigate consumer preferences for information - as an important decision 'attribute' along with other attributes such as risk, benefit and cost. The levels of the attribute
would be the sources of information including, promotion, media, reports, internet source, official information, doctor. The aim of the consumer DCE would be to help answer the following questions:

- What is the relative importance of different sources of information?
- Do consumer preferences for treatments change in response to exposure to promotion?

Further research into how drug promotion influences doctor and patient interaction from the doctor's point of view is also important. Further studies with doctors (General Practitioners) would be to help answer the following questions:

- Does an approach by a patient for information about a condition predispose them to prescribe?
- If a patient with symptoms of the condition asks for a drug directly are they more likely to prescribe than if they came in only with symptoms?
- How much influence does a recent visit by a drug rep have to their prescribing patterns
  - Do they feel ‘压ored’ in such circumstances?
  - Do they perceive that patients expect a prescription?

The further research would not be undertaken to demonstrate a causal relationship between promotion and prescription per se, but rather to establish the extent to which ‘pharmaceuticalisation’ extends into the consultation room.
Research could be initiated using this framework where recognition of the complexity of pharmaceutical use is explicitly acknowledged. This framework can be modified and refined in the light of further systematic investigation.
References


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## Appendix 1: Coding Frame for In-Depth Interviews

<table>
<thead>
<tr>
<th>Short Code</th>
<th>Code Category Label and Concept</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action/Interaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry factors</td>
<td>Company structure</td>
<td>Vertical integration of industry leads to efficient system/Broken Pharma industry, needs to engage in disease mongering activities to sustain itself/The orchestrated, systematic effort in the production of disease mongering/Shift of investment by pharma from R&amp;D to marketing so it can sustain itself, has gotten too big/Stranglehold on provision of medicines by pharma/Blockbusters coming off patent/Since pharma has become more profitable there has been more competition therefore they all have to do it/Scale has increased over time</td>
</tr>
<tr>
<td>Multi factors</td>
<td>Consequence of interactions, isn't static, alive, multiple players/ emerges from interaction of main players</td>
<td>Complex, active and varied interaction between multiple players assisting in the production of disease mongering</td>
</tr>
<tr>
<td>Pop1</td>
<td>Definition/feature/characteristic involves popularisation of diseases and drugs</td>
<td>Popularisation of lesser known diseases and the immediate use of drug/medical treatments/Desire for more health knowledge by society</td>
</tr>
<tr>
<td>Pop2</td>
<td>Healthism</td>
<td>Popularisation of medical concepts and ideas</td>
</tr>
<tr>
<td>DTCA</td>
<td>Tool of DM/DM can involve DTCA/DTCA can involve DM</td>
<td>The negative influence of DTCA/DTCA is of such high quality that it has enormous influence</td>
</tr>
<tr>
<td>Resist</td>
<td>Resistance is happening/should be more of it</td>
<td>Resistance against pharma promotion/Policies that med students not allowed to accept gifts from industry/backlash</td>
</tr>
<tr>
<td>Regulation</td>
<td></td>
<td>Regulation by government can influence the direction and extent of disease mongering/Guidelines/Framework/model that allows dm to happen needs to be addressed/Model for how profits for industry are assessed needs to change/Not having to provide full public disclosure of negative effects/Regulation not changing in the face of adverse events/Medicines Australia code of conduct not effective</td>
</tr>
<tr>
<td>Volume</td>
<td></td>
<td>The volume of disease awareness materials has an influence on behaviour</td>
</tr>
<tr>
<td>Entangle</td>
<td></td>
<td>Buying influence to further commercial influence/Need to take pharma out of the consulting room/Corruption at various</td>
</tr>
<tr>
<td>PH promotion 1</td>
<td></td>
<td>levels by pharma to alter public opinion</td>
</tr>
<tr>
<td>Media 1</td>
<td>Media engagement in DM</td>
<td>Complicit media</td>
</tr>
<tr>
<td>Media 2</td>
<td>Media critical of DM</td>
<td>Media critically commenting on disease mongering</td>
</tr>
<tr>
<td>Def 1</td>
<td>Selling disease to sell drugs</td>
<td>Selling a disease to sell its remedies/disease promotion/disease marketing</td>
</tr>
<tr>
<td>Tactic 1</td>
<td>Expand disease definition</td>
<td>Actively broadening the definitions of disease to sell more/creation of guidelines/Invention of depression for market of anti-depressants</td>
</tr>
<tr>
<td>Tactic 2</td>
<td>Use of fear</td>
<td>Marketing of fear</td>
</tr>
<tr>
<td>Tactic 3</td>
<td>Risk mongering, exploitation of risk aversion</td>
<td>Risk mongering</td>
</tr>
<tr>
<td>Tactic 4</td>
<td>Dishonesty</td>
<td>Dishonest promoting activities/Selling drugs as social enhancements rather than as medicines</td>
</tr>
<tr>
<td>Objective 1</td>
<td>Creating unnecessary demand</td>
<td>Selling drugs to people who are well/Creating the perception of unmet needs/Need to shift to where not giving meds is given equal weight/Society abdicates responsibility for its own health, we take a pill rather than do other things/Focus on treatment rather than prevention or education</td>
</tr>
<tr>
<td>Promotion 1</td>
<td>Legitimate disease awareness/promotion</td>
<td>Not all pharma promotion involves DM</td>
</tr>
<tr>
<td>Disease 1</td>
<td>Life style conditions easier to monger</td>
<td>Conditions related to self-image are more easily mongered/When a condition is difficult to define, has a continuum of severity of symptoms it is easier to exploit/Continuum not just for disease state but how individuals react to them, their innate coping mechanisms or sense of self</td>
</tr>
<tr>
<td>Public Aware 1</td>
<td>Public needs to know about good and bad Pharma</td>
<td>Needs to be public awareness of pharma's nasty side and acknowledgement of the positive side</td>
</tr>
<tr>
<td>Commodity</td>
<td>Buying of the human body</td>
<td>Buying of the human body</td>
</tr>
<tr>
<td>Non industry DM</td>
<td>Health professionals furthering personal agendas by engaging in DM activities</td>
<td>DM not organised on a personal research level, is at industry level/Competition for recourses causing consumer groups to make their problem sound worse than it is</td>
</tr>
<tr>
<td>Disease 2</td>
<td></td>
<td>Diseases that effect women are more likely to be mongered</td>
</tr>
<tr>
<td>Disease awareness 1</td>
<td>Illegitimate for pharma to raise disease awareness</td>
<td>Raising disease awareness not a legitimate role for pharma/for pharma it is always profit driven</td>
</tr>
<tr>
<td>Innov 1</td>
<td></td>
<td>Not creating anything new/lack of evidence of efficacy/Innovation of new drugs gives marginal advantages but gives disease awareness campaigns greater momentum</td>
</tr>
<tr>
<td>Judgement 1</td>
<td></td>
<td>DM is unethical conduct</td>
</tr>
<tr>
<td>DM research</td>
<td></td>
<td>Need to be more studies about the consequences of DM and the harm to the public</td>
</tr>
<tr>
<td>Advertising</td>
<td>Techniques used in drug advertising the same as for other products/Use of sophisticated techniques of the psychology of persuasion/Use of internet blogs to target specific types of people</td>
<td></td>
</tr>
<tr>
<td>Market 1</td>
<td>Industry needs to make money/active in profitable markets</td>
<td></td>
</tr>
<tr>
<td>Medicalisation</td>
<td>Using medical language to redefine something into a disease rather than part of life/Disease mongering trades on the currency of medicine/Public health role extending control to the whole of the population- bad</td>
<td></td>
</tr>
<tr>
<td>Perfection</td>
<td>Selling drugs as social enhancements rather than as medicines/Conceptual shift from disease process to failure of treatment for disease/People spoiling the health they have worrying about imperfection or what may happen/Prolonging life at all costs can create more/different diseases/The change in the production of health as a concept. It's no longer ok just to be healthy, you have to be perfect/Society responding to the messages of unrealistic desire without effort</td>
<td></td>
</tr>
<tr>
<td>Therapy</td>
<td>Therapy success becomes therapy excess</td>
<td></td>
</tr>
</tbody>
</table>

**Consequences**

| DM growth | Disease mongering keeps growing, is inevitable |
| Support | Consumers need support to get independent views |

<table>
<thead>
<tr>
<th>Harms</th>
<th>Harms</th>
<th>Harms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worse health outcomes. Medical progress does more harm than good, same for drugs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fearful community, the more awareness raising people are exposed to, the more afraid they become</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Default reaction to anything that may be wrong is a medical/drug one</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substituting a medical/drug response to everything in life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subversion of energies by industries that could be focussed on developing cures for diseases in poorer countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People can be taking medication that they don't need to be</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public health campaigns becoming less beneficial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM is a contaminant to information akin to water or air contaminants</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Benefits</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible benefit that disease awareness raising activities could cause someone who needs help to get it when they might not have other wise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conditions</td>
<td>Reducing the burden of disease</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td>Intentions</td>
<td>Some of the players involved in the production of disease mongering do not necessarily have bad intentions</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Consumers are suggestible, gullible/can feel empowered as consumers instead of patients</td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td>Doctors can be sloppy in their prescribing habits/Medical profession do not want to expose their lack of knowledge about particular disease(s)/Most medical professionals do not view DM as a major problem</td>
<td></td>
</tr>
<tr>
<td>Fuzzy boundaries</td>
<td>Fuzzy boundaries between raising disease awareness and disease mongering/DM is an ambiguous term</td>
<td></td>
</tr>
<tr>
<td>Gov't</td>
<td>Gov't complicit in medicalisation so they don't have to address structural problems in society</td>
<td></td>
</tr>
<tr>
<td>Public Health</td>
<td>Push for early intervention</td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>Universal fear of death, disabling illness, premature disease or death</td>
<td></td>
</tr>
<tr>
<td>Novelty</td>
<td>As a society we think if something is new it must be better/consumer model</td>
<td></td>
</tr>
<tr>
<td>Biologic</td>
<td>Need to have a biological effect for DM to be successful</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2: Schedule of Topics for In-depth interviews

INTERVIEW GUIDE- for telephone interviews

Participant name:

Introduction
Thank you for agreeing to participate in this research.

I would like to record this interview so that I don't lose any important bits of information. Is that OK with you?

If not then take written notes

Good. I will tell you when I am turning the tape on and off.

As you already know, today’s interview is about your views and opinions around the concept of disease mongering. Before we begin, I would like to remind you that you can withdraw from the study or stop the interview at any time without giving me a reason. Do you have any questions before we begin?

Questions/prompts

1. Do you use the term – disease mongering – Why/Why Not?

2. How would you define disease mongering?

3. Why does disease mongering happen?

4. How does disease mongering differ from the ‘legitimate’ raising of disease awareness by the pharmaceutical industry?
5. What are the typical characteristics of disease mongering?

6. What are obvious examples of disease mongering?

7. What are less clear cut cases of disease mongering?
   - What makes these cases less obvious?

8. What causes disease mongering?
   - What specific criteria need to be met for a disease to be mongered?

9. What are the consequences of disease mongering?

10. Is disease mongering always harmful?

11. How do you distinguish disease mongering from raising disease awareness?

12. Does all pharmaceutical promotion involve disease mongering?

13. Does only commercial promotion involve disease mongering?

14. Is disease mongering a recent phenomenon?

15. Is disease mongering avoidable? How?
16. What is the relationship between disease mongering and DTCA?

17. Why is disease mongering bad?

18. Is disease mongering always effective?

19. Do we know how effective disease mongering is and how do we know?

20. Is disease mongering inevitable?

21. What could inhibit disease mongering?
   - What currently inhibits disease mongering?
   - Could disease mongering be worse than it is?

22. Does disease mongering start with a decision?
   - Who most commonly would make that decision?

23. Is disease mongering a top-down phenomenon, a bottom-up or a somewhere in the middle?

24. Is disease mongering Pharma’s most egregious practice?

25. How high does disease mongering rate among the concerns facing public health?
26. Can any condition be disease mongered?

27. What makes some conditions particularly susceptible to disease mongering?

Thank you for your time, I just have one final question. Would you be able to recommend anyone else who you think would be relevant to interview for this study?
Appendix 3: Table of Conditions for Regional Case Study

<table>
<thead>
<tr>
<th>Set name</th>
<th>No. of items in set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abortion pill</td>
<td>5</td>
</tr>
<tr>
<td>Aging</td>
<td>4</td>
</tr>
<tr>
<td>Allergies</td>
<td>4</td>
</tr>
<tr>
<td>Anorexia and eating disorders</td>
<td>3</td>
</tr>
<tr>
<td>Arthritis</td>
<td>5</td>
</tr>
<tr>
<td>Asthma</td>
<td>11</td>
</tr>
<tr>
<td>Bloating</td>
<td>1</td>
</tr>
<tr>
<td>Cancer</td>
<td>176</td>
</tr>
<tr>
<td>Child abuse or neglect</td>
<td>2</td>
</tr>
<tr>
<td>Childhood development</td>
<td>6</td>
</tr>
<tr>
<td>Chronic pain</td>
<td>4</td>
</tr>
<tr>
<td>Common cold and seasonal flu</td>
<td>5</td>
</tr>
<tr>
<td>Dental issues</td>
<td>6</td>
</tr>
<tr>
<td>Depression and bipolar</td>
<td>37</td>
</tr>
<tr>
<td>Diabetes</td>
<td>21</td>
</tr>
<tr>
<td>Dementia and Alzheimer’s</td>
<td>29</td>
</tr>
<tr>
<td>Disease and health general</td>
<td>87</td>
</tr>
<tr>
<td>Drug and alcohol addiction and abuse</td>
<td>34</td>
</tr>
<tr>
<td>Drugs and vaccines</td>
<td>64</td>
</tr>
<tr>
<td>Endometriosis</td>
<td>2</td>
</tr>
<tr>
<td>Environmental effects on health</td>
<td>5</td>
</tr>
<tr>
<td>Topic</td>
<td>Count</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Exercise and fitness</td>
<td>4</td>
</tr>
<tr>
<td>Eye health</td>
<td>14</td>
</tr>
<tr>
<td>Genetics</td>
<td>19</td>
</tr>
<tr>
<td>Health status</td>
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</tr>
<tr>
<td>Health workers</td>
<td>21</td>
</tr>
<tr>
<td>Heart disease/defects and stroke</td>
<td>21</td>
</tr>
<tr>
<td>Hendra virus</td>
<td>36</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>1</td>
</tr>
<tr>
<td>HIV and AIDS</td>
<td>15</td>
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<td>Malaria</td>
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<td>Nutrition and food industry</td>
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<td>Obesity</td>
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<td>Osteoporosis and bone health</td>
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<td>Overheating</td>
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<td>Parkinson’s</td>
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<td>PCOS</td>
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</tr>
<tr>
<td>Topic</td>
<td>Count</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Pharma industry</td>
<td>8</td>
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<td>Psychology general</td>
<td>11</td>
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<tr>
<td>Regulation</td>
<td>8</td>
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<td>Respiratory disease</td>
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<td>Ross River Fever</td>
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<tr>
<td>Scarlet fever</td>
<td>2</td>
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<td>Schizophrenia</td>
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<td>Skin disease</td>
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<td>Sleeping</td>
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<td>Stem cell therapy</td>
<td>5</td>
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<td>Sexually transmitted infections</td>
<td>9</td>
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<tr>
<td>Super bugs and infections</td>
<td>11</td>
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<tr>
<td>Surgery</td>
<td>2</td>
</tr>
<tr>
<td>Swine flu</td>
<td>225</td>
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<tr>
<td>Vitamin deficiency</td>
<td>4</td>
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<tr>
<td>Whooping cough</td>
<td>3</td>
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</tbody>
</table>
Appendix 4: CATI Questionnaire Script

This survey is looking at how information about medical conditions and treatments is made available to people, particularly through the media.

Medical conditions - include diseases, illnesses, disorders, risk factors; anything that can make you sick. Treatments include - surgical procedures, prescription medicines, over the counter medicines, medical devices (asthma inhalers for example) or lifestyle changes such as dieting or exercise.

We are interested in finding out: where people get their information about medical conditions and treatments from; what they do with that information; whether they think the information is helpful; whether they think the information can be trusted.

Where would you usually learn about a medical condition?

RESP CAN NOMINATE MULTIPLE SOURCES

Media
[Codes are not read out, they are only there for interviewers to use to cut down on coding time]
1. Print news story (newspaper, magazine)
2. News story on television
3. News story on Radio
4. Print advertisement
5. Internet
6. Outdoor advertising (billboards)
7. Other [TYPED RESPONSE]
8. Don’t know

Family members or Friends
Doctor
Other

Can you recall hearing or reading about any conditions in the media over the past 12 months?
[yes / no / don’t know / refused]

[Prompt: If resp can’t remember any say ‘for example heart disease, osteoporosis or diabetes’]

IF YES ask
What are the 3 conditions you can recall hearing the MOST about
#
#
#
Where did you hear about these conditions? RESP CAN NOMINATE MULTIPLE SOURCES

[Codes are not read out, they are only there for interviewers to use to cut down on coding time]

8. Print news story (newspaper, magazine)
9. News story on television
10. News story on Radio
11. Print advertisement
12. Internet
13. Outdoor advertising (e.g. billboards)
14. Other [TYPED RESPONSE]
8. Don’t know

Were any of these conditions described as new conditions, or as conditions that were under recognised or under treated?
[yes / no / don’t know / refused]

If YES ask
Which ones
#
#
#

Had you heard of this condition before?
[yes / no / don’t know / refused]

Alternative response options - Never, Occasionally, Often (needs to be repeated where more than one condition is nominated)

Do you recall if any treatments were mentioned when you heard about these conditions?
[yes / no / don’t know / refused]

If YES ask
Which conditions?
#
#
#

What was the treatment for this condition?
#

Had you heard about this treatment before?
[yes / no / don’t know / refused]

Where would you usually learn about a treatment?

RESP CAN NOMINATE MULTIPLE SOURCES

Media

[Codes are not read out, they are only there for interviewers to use to cut down on coding time]

15. Print news story (newspaper, magazine)
16. News story on television
17. News story on Radio
18. Print advertisement
19. Internet
20. Outdoor advertising (e.g. billboards)
21. Other [TYPED RESPONSE]
9. Don’t know
Family members or Friends
Doctor
Other

Can you recall hearing or reading about any particular treatment in the media over the past 12 months?
[yes / no / don’t know / refused]

IF YES ask

What are the 3 treatments that you can recall hearing the MOST about # # #

What do you think are the three most important medical conditions that need to be addressed in Australia? # # #

Why?

Do you think that there are some medical conditions in Australia that are under treated?
[yes / no / don’t know / refused]

If Yes - which? # # #

Do you think that there are some medical conditions in Australia that are over treated?
[yes / no / don’t know / refused]

If No - which # # #

The following questions relate to yourself and anyone you have caring responsibilities for.

Have you ever asked your doctor about a medical condition that you have heard about in the media?
[yes / no / don’t know / refused]

Did that result in you receiving treatment?
[yes / no / don’t know / refused]

Was that treatment a prescription drug?
[yes / no / don’t know / refused]

Have you ever asked your doctor about a treatment that you have heard about in the media?
[yes / no / don’t know / refused]

Did that result in you receiving treatment?
[yes / no / don’t know / refused]

Was that treatment a prescription drug?
[yes / no / don’t know / refused]

Have you ever asked a doctor about a specific brand name drug you have heard about in the media?
[yes / no / don’t know / refused]

Did that result in the doctor prescribing the brand name drug?
[yes / no / don’t know / refused]

Do you think that you have ever been prescribed a medication that you didn’t really need?
[yes / no / don’t know / refused]

Have you ever looked for information about a medical condition that you had heard about in the media (from sources other than your doctor)?
[yes / no / don’t know / refused]

IF YES
Where did you look (e.g. internet)?
[yes / no / don’t know / refused]

Was the information you found helpful?
[yes / no / don’t know / refused]

Do you know who provided the information (e.g. government or drug company)?

Have you ever looked for information about a treatment that you had heard about in the media from sources other than your doctor)?
[yes / no / don’t know / refused]

IF YES
Where did you look?

Was that treatment a prescription drug?
[yes / no / don’t know / refused]

Was the information you found helpful?
[yes / no / don’t know / refused]

Do you know who provided the information (e.g. government or drug company)?

Have you ever been given a drug sample by a doctor?
[yes / no / don’t know / refused]
It has been argued that for some conditions the information made available to people may exaggerate how serious the condition is or how many people may suffer from it and need treatment.

Overall, how strongly do you agree or disagree that information about a medical condition from the following sources can be trusted

[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/ don’t know / refused]

#Government Health Department
#Disease focussed organisation (e.g. Heart Foundation or Diabetes Australia)
#Pharmaceutical company

Overall, how strongly do you agree or disagree that the following conditions have been exaggerated in the media [Items will be presented in random order to reduce selection bias]

[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/haven’t heard of condition/don’t know / refused]

# Restless leg syndrome
# Sexual dysfunction (e.g. male impotence)
# Osteoporosis
# ADHD
# Depression
# Breast cancer
# HIV or AIDS

Can you think of a medical condition that we haven’t listed may have been exaggerated?

Which?

The following questions relate to conditions you may have heard about from sources OTHER than a doctor who was treating you.

Have you ever heard about a condition in the media and then become worried that you may have it?

[yes / no / don’t know / refused]

If YES, ask

Which of the following BEST describes why that is?

1. You think that you may have the symptoms described in the information
2. There has been a lot of public attention regarding the condition
3. The information indicates that many people like you might suffer from the condition
4. The information claims that many people might be suffering from the condition and not be aware of it.
8. None of the above [Do NOT READ OUT]

Did you then seek advice from your doctor about the condition?

Did you receive treatment?

[yes / no / don’t know / refused]
I’m now going to ask you some questions about a specific kind of treatment, prescription medicines.

I’ll read some statements about prescription medicines and ask you to tell me whether you agree or disagree with them.  
[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/don’t know / refused]

# You'd rather not use a prescription medicine if other forms of treatment are available

# If your doctor says a prescription medicine is necessary then you're likely to fill the script and take the medicine.

# If you have an health issue you're likely to ask your doctor if there's a medicine that will help.

# If your doctor suggests using a prescription medicine you're likely to 
  1. ask for more information
  2. ask if there is an alternative
  3. ask if it is really necessary
  4. ask about side effects

When a decision has to be made about your need to use a prescription medicine, would you prefer ……
1. To make the decision yourself
2. You make the decision after seriously considering your doctor's opinion
3. Your doctor and you make the decision equally
4. Your doctor makes the decision after seriously considering your opinion
5. That your doctor makes the decision alone
8. DON'T KNOW [DO NOT READ OUT]
9. REFUSED [DO NOT READ OUT]

Prescription medicines are an important treatment for many medical conditions and the pharmaceutical industry is a major source of information about medicines. Now I’m going to ask you some questions about the pharmaceutical industry.

When I say 'pharmaceutical industry' what words first come to mind? [open ended]

How strongly do you agree or disagree (5 point scale) with the following statements about the Pharmaceutical industry.  
[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/don’t know / refused]

# The pharmaceutical industry’s primary motive is to help people
# The pharmaceutical industry’s primary motive is to make profits
# Claims made by the pharmaceutical industry about their drugs are trustworthy
# The work of the pharmaceutical industry has improved the health of the population

The pharmaceutical industry often works closely with doctors, we’re now going to ask you some questions about that relationship.
Do think it is appropriate for them to provide to doctors with...

Small gifts such as pads or pens
[IF NO - enter 2 AND ASK - Why is that? ]

Inexpensive lunch at a doctor's office
[IF NO - enter 2 AND ASK - Why is that? ]

Overseas conference expenses
[IF NO - enter 2 AND ASK - Why is that? ]

Do you think that it's appropriate that doctors and the pharmaceutical industry conduct research together?
[yes / no / don't know / refused]

If no Why?
# If yes Why?
#

Do you think that it is appropriate that the pharmaceutical industry provides doctors with information about their drug products?
[yes / no / don't know / refused]

If no Why?
Who should provide the information?
# If yes Why?
#

How strongly do you agree or disagree that doctors are too close to industry?
[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/don't know / refused]

The pharmaceutical industry also interacts with the general public in a number of different ways. We're now going to ask you some questions about some of these interactions.

How strongly do you agree or disagree that it is appropriate for pharmaceutical companies to sponsor disease awareness campaigns for example a National Cholesterol Awareness Campaign?
[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/don’t know / refused]

Overall, do you see the information about a medicine that is provided by a pharmaceutical company as mainly:
1. Advertising
2. Information
3. A bit of both
Who do you think should be MAINLY responsible for providing health messages or education to the general public?

Currently only two countries in the world, The United States and New Zealand allow pharmaceutical companies to advertise prescription drugs directly to consumers. This is known as Direct to Consumer Advertising, or DTCA.

Do you think DTCA should be allowed in Australia?

For both Yes and no
Why do you say that?

How strongly do you agree or disagree that if a drug is advertised it is safe to use?
[Strongly disagree/disagree /neither agree nor disagree/agree/strongly agree/don’t know / refused]

Now some final questions to ensure that we’ve spoken to a wide range of people.

In addition to Medicare, are you covered by any private health insurance?
[yes / no / don’t know / refused]

Have you been prescribed a prescription medicine in the past 12 months?
[yes / no / don’t know / refused]

In general, would you say that your health is...?
[READ SCALE]
1. Poor
2. Fair
3. Good
4. Very good
5. Excellent
8. DON'T KNOW[DO NOT READ]
9. REFUSED [DO NOT READ]

What is your gender? [OBSERVE OR ASK]
#  M.  Male   F.  Female   [9. REFUSED ]

Q33. Could you tell me how old you are? [OVER 90=95]
#  [INTERVIEWER - ENTER ACTUAL AGE IF GIVEN]
IF REFUSED ASK  - Q10A. What age group are you? [READ OUT]
1. 16-19
What best describes YOUR work status?

[READ OPTIONS]

1. Paid full-time employment
2. Paid part-time employment
3. Paid casual employment
4. Looking for paid employment
5. Student
6. Home duties
7. On a pension other than the age pension
10. Retired [EITHER ON AGE PENSION OR SELF-FUNDED SUPER]
_. Other [TYPE IN ANSWER] [88. DO NOT KNOW 99. REFUSED]
#

What is the last year of SCHOOL you completed?

[DO NOT READ - USE CODES]

1. Still at school
2. Did not go to school
3. Year 8 or below
4. Year 9 or equivalent
5. Year 10 or equivalent
6. Year 11 or equivalent
7. Year 12 or equivalent
#

[8. DON'T KNOW 9. REFUSED]

Do you have any post school qualifications?

# 1. Yes 2. No [9. REFUSED]

IF yes

What is the HIGHEST qualification you have?

[READ OPTIONS - USE CODES WHERE POSSIBLE]

1. Technical or trade certificate
2. College certificate/diploma
3. Undergraduate degree / diploma
4. Postgraduate degree / diploma

[TYPE IN OTHER - 9. REFUSED]
Appendix 5: Interviewer Training

Project interviewers attended a training session before beginning data collection. During that session, interviewers were given a training manual that was designed specifically to address operating CATI procedures and survey methods relating to data collection for this study.

The training covered the topics listed in the table below. During the training session, the interviewers had an opportunity to ask questions and clarify any concerns or issues they may have had with data collection methods. They were also able to practice with the CATI survey prior to commencement of data collection.

<table>
<thead>
<tr>
<th>Topics/Headings</th>
<th>Aim</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background to the survey</td>
<td>To provide details of staff working on the study</td>
<td>• Overview of methods used in the survey;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The study population;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sample coverage &amp; selection technique;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The respondent;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Target number of completed interviews;</td>
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<tr>
<td></td>
<td></td>
<td>• The survey questionnaire.</td>
</tr>
<tr>
<td>The survey</td>
<td>To provide interviewers with an overview of the study</td>
<td>• Requests for more information;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Call attempts;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The CATI introduction script;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Barriers to contacting the respondent (i.e. gate keepers);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dealing with refusals (inc. turning soft refusals into a completed interview);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Confidentiality issues;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recording respondents’ comments;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• NES &amp; respondents not available during the survey period;</td>
</tr>
<tr>
<td>Data collection issues</td>
<td>To provide detailed CATI data collection procedures and methods</td>
<td>• Call attempts;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The CATI introduction script;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Barriers to contacting the respondent (i.e. gate keepers);</td>
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<tr>
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<td>• Dealing with refusals (inc. turning soft refusals into a completed interview);</td>
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<tr>
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<td>• Confidentiality issues;</td>
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<td></td>
<td></td>
<td>• Recording respondents’ comments;</td>
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<tr>
<td></td>
<td></td>
<td>• NES &amp; respondents not available during the survey period;</td>
</tr>
<tr>
<td>Topics/ Headings</td>
<td>Aim</td>
<td>Contents</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bias</td>
<td>To provide an overview of the types of bias which could impact on the survey</td>
<td>Quality control.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OH&amp;S issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Varying contact attempt days &amp; time;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refusals (a) respondents most likely to refuse (b) how to minimise refusals;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participation rates;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Embarrassment;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tone of voice.</td>
</tr>
<tr>
<td>Practical experience</td>
<td>To provide practical experience with conducting the CATI survey and address potential respondents’ questions</td>
<td>Interviewers conducted the CATI survey with each other and researchers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Up to 2 hours were needed for each interviewer to practise the CATI survey.</td>
</tr>
</tbody>
</table>

**General interviewing training**

All interviewers participated in ongoing training, which covered:

- The rationale and importance of random selection. For example: *The collection of data which is representative of the population.*

- Telephone techniques to ensure random selection within the household. For example: *CATI prompted selection*

- Bias which can be introduced through non-random selection. For example: *Accepting the person who answers the telephone as the respondent is likely to give an over representation of women in the sample.*

- Methods of converting soft refusals. For example: *Offer to call back at a more suitable time if respondents indicated they were too busy to do the interview and conclude the call before a definite refusal was given. Reinforce the importance of the survey.*
- Telephone techniques to deal with distressed respondents. For example: *Use of the emergency numbers provided to interviewers at the start of each project, and listed in their interviewers’ manual as well as on the CATI system.*

- Telephone techniques which do not ‘lead’ the respondent. For example: *Not using language that might influence the respondent’s answer. Rather, the interviewers are instructed to repeat the answer to confirm that the response has been heard correctly. If a respondent does not understand a question, interviewers are instructed to read the question again, rather than paraphrasing the question.*

- Telephone techniques which avoid the perception the interviewer is judging the respondent’s answers. For example: *Not responding to a respondent’s answer with any voice intonations or mannerisms which might reveal the interviewers disapproval or approval of the answer such as taking a breath after an answer is provided, using language such as ‘that’s good’, throat clearing, and so forth.*

**CATI contact attempts**

Attempts at contacting each respondent were usually made between the hours of 9 a.m. and 8 p.m. Eastern Standard Time (EST), Monday to Friday.

A minimum of 6 call attempts were made to each household to establish contact, unless a terminating code was entered (terminating codes include completion of interview, personal refusals, household refusals, ineligible contacts, unsuitable/incapable respondents etc.). Once contact had been made, at least another 5 attempts were made to speak to the respondent to obtain either a completed interview or a refusal.
During the survey, appointments were made if the respondent was unable to complete the interview when contacted by an interviewer. Appointments were encouraged between 11 a.m. and 9 p.m. EST. However, if this did not suit the respondent, another time was arranged.
## Disease Mongering Community Survey

### Ineligible

<table>
<thead>
<tr>
<th>FINAL OUTCOME</th>
<th>No.</th>
<th>No. as % of total</th>
<th>No. as % of eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>35</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Disconnected</td>
<td>324</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Fax</td>
<td>24</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Call back - exhausted attempts</td>
<td>4</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Unavailable during survey period</td>
<td>282</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Unsuitable</td>
<td>296</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>No answer</td>
<td>132</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Answering machine</td>
<td>285</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Engaged</td>
<td>10</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Language difficulty</td>
<td>16</td>
<td>1%</td>
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</tr>
<tr>
<td>Not in study area</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total ineligible</strong></td>
<td>1408</td>
<td>55%</td>
<td>55%</td>
</tr>
</tbody>
</table>

### Eligible

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>% of total</th>
<th>% of eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consenters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed interview</td>
<td>812</td>
<td>32%</td>
<td>70%*</td>
</tr>
<tr>
<td><strong>Non-consenters</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Household refusal</td>
<td>145</td>
<td>6%</td>
<td>12%</td>
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<tr>
<td>Personal refusal</td>
<td>195</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>Incomplete interview</td>
<td>13</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total eligible</strong></td>
<td>1165</td>
<td>45%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Total**                  | 2,573| 100%       |

**Response Rate**

70%